JVC

SERVICE MANUAL

FLAT COLOUR TELEVISION

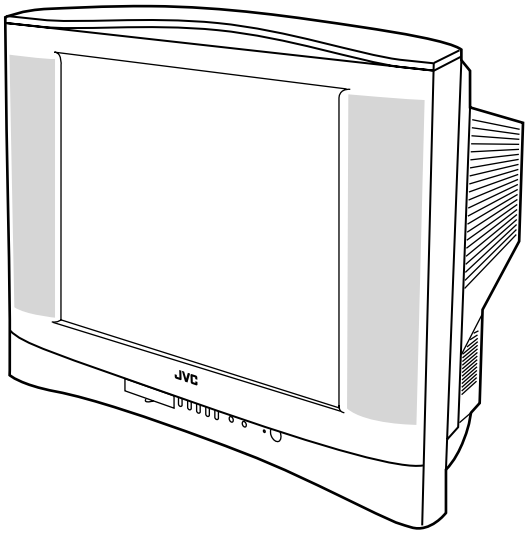
BASIC CHASSIS
CH3

AV-21V311 /B
AV-21V511 /B
AV-21V531 /B

RM-C1305-1H
[AV-21V311/B]

RM-C1303-1H
[AV-21V511/B]

RM-C1307-1H
[AV-21V531/B]



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SPECIFICATION

Items		Contents		
		AV-21V311/B	AV-21V511/B	AV-21V531/B
Dimentions (W x H x D)		64.9cm x 46.5cm x 47.3cm		64.9cm x 47.8cm x 47.3cm
Mass		24.5kg		23.5kg 2.4kg (Bass Blaster Unit)
TV RF System		B, G	B, G, I, D, K, M	
Colour System	TV Mode	PAL / SECAM	PAL / SECAM / NTSC3.58 / NTSC4.43	
	Video Mode	PAL / SECAM / NTSC3.58 / NTSC4.43		
Stereo System		A2(B/G)(Bilingual), Playback	A2(B/G)/NICAM (B/G, I, D/K)	
Receiving Frequency	VHF Low	46.25MHz - 140.25MHz (AS0 - S6)		
	VHF High	147.25MHz - 423.25MHz (S7 - S36)		
	UHF	431.25MHz - 863.25MHz (S37 - CHINA 57)		
	CATV	Mid : X - Z, S1 - S10 Super : S11 - S20 Hyper : S21 - S41		
Intermediate Frequency	VIF	38.0MHz		
	SIF	31.5MHz(6.5MHz) 32.0MHz(6.0MHz) 32.5MHz(5.5MHz), A2: 32.26MHz(5.74MHz)	31.5MHz(6.5MHz), NICAM: 32.15MHz(5.85MHz) 32.0MHz(6.0MHz), NICAM: 31.45MHz(6.55MHz) 32.5MHz(5.5MHz), A2: 32.26MHz(5.74MHz), NICAM: 32.15MHz(5.85MHz) 33.5MHz(4.5MHz)	
Colour Sub Carrier Frequency		4.43MHz(PAL) 4.40MHz/4.25MHz(SECAM)	4.43MHz(PAL), 4.40MHz/4.25MHz(SECAM) 3.58MHz/4.43MHz(NTSC)	
Aerial Input Terminal		75Ω unbalanced		
Power Input		AC110V - AC240V, 50Hz/60Hz		
Power Consumption		126W(Max.)/81W(Avg.)		150W(Max.)/93W(Avg.)
Picture Tube		Visible size: 50.8cm (Diagonal) / 41.6cm x 31.5cm (H x V)		
High Voltage		29kV ±1.5kV (at zero beam current)		
Speaker		6.5cm x 13cm, Oval type x 2		6.5cm x 13cm, Oval type x 2 Ø13cm (Bass Blaster Unit)
Audio Output		7W + 7W		7W + 7W +13W
Video / Audio Input (1/2/3)	S-Video (1)	Mini-DIN 4pin x 1 Y : 1V(p-p), positive (negative sync provided), 75Ω C : 0.286V(p-p) (Burst signal), 75Ω		
	Video (1/2/3)	1V(p-p), negative sync, 75Ω, RCA pin jack x 3		
	Audio (1/2/3)	500mV(rms) (-4dBs), high impedance, RCA pin jack x 6		
	Component (2)	RCA pin jack x 3 Y : 1V(p-p), positive (negative sync), 75Ω C_B/C_R : 0.7V(p-p), 75Ω		
Video / Audio Output	Video	1V(p-p), 75Ω, RCA pin jack x 1		
	Audio	500mV(rms) (-4dBs), Low inpedance (400Hz when modulated 100%), RCA pin jack x 2		
Headphone		3.5mm stereo mini jack x 1		
Remote Control Unit		RM-C1305-1H (AA/R06/UM-3 battery x 2)	RM-C1303-1H (AA/R06/UM-3 battery x 2)	RM-C1307-1H (AA/R06/UM-3 battery x 2)

Design & specifications are subject to change without notice.

SECTION 1
PRECAUTION

1.1 SAFETY PRECAUTIONS

(1) The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

(2) Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

(3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.

(4) **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED (NEUTRAL) : (⏚) side GND and EARTH : (⏚) side GND. Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time with a measuring apparatus (oscilloscope etc.).
If above note will not be kept, a fuse or any parts will be broken.

(5) If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).

(6) The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.

(7) Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.

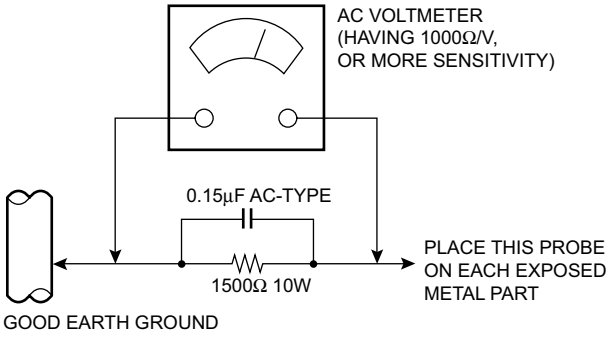
(8) When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

(9) **Isolation Check**
(Safety for Electrical Shock Hazard)
After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

a) Dielectric Strength Test
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second. (. . . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.) This method of test requires a test equipment not generally found in the service trade.

b) Leakage Current Check
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

Alternate Check Method
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

2.1 FEATURES

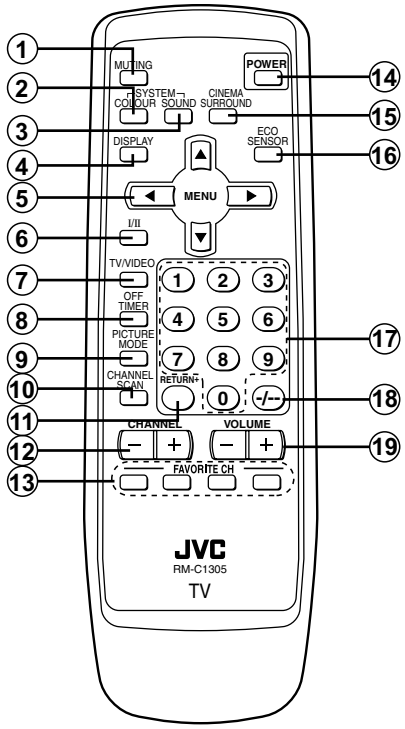
- New chassis design enables use of an interactive on-screen control.
- Pure flat CRT produces fine textured picture in every detail.
- Wide range voltage (110V ~ 240V) for AC power input.
- With AUDIO/VIDEO/S-VIDEO/COMPONENT input terminals.
- I^2C bus control utilizes single chip ICs.
- By means of AUTO PROGRAM, the TV stations can be selected automatically and the TV channels can also be rearranged automatically.
- Built-in DIGITAL ECO MODE (ECONOMY, ECOLOGY).
  In accordance with the brightness in a room, the brightness and/or contrast of the picture can be adjusted automatically to make the optimum picture which is easy on the eye.
- Built-in OFF TIMER & RETURN +.

2.2 MAIN DIFFERENCE LIST

⚠	Items	AV-21V311/B	AV-21V511/B	AV-21V531/B
⚠	MAIN PWB ASS'Y	SCH-1150A-BK	SCH-1151A-BK	SCH-1146A-BK
⚠	PICTURE TUBE	A51QDX992X	←	A51LVV896X
⚠	FRONT CABINET ASS'Y	GG10238-006B-H	GG10238-004B-H	←
	REMOTE CONTROL UNIT	RM-C1305-1H	RM-C1303-1H	RM-C1307-1H
	COLOUR SYSTEM (TV mode)	PAL / SECAM	PAL / SECAM / NTSC	←
	STEREO SYSTEM	A2 (Bilingual)	A2/NICAM	←
	BASS BLASTER	None	←	BASS BLASTER UNIT
	AUDIO OUTPUT	7W + 7W	←	7W + 7W + 13W
	POWER CONSUMPTION	126W(MAx.) / 81W(Avg.)	←	150W(Max.) / 93W(Avg.)

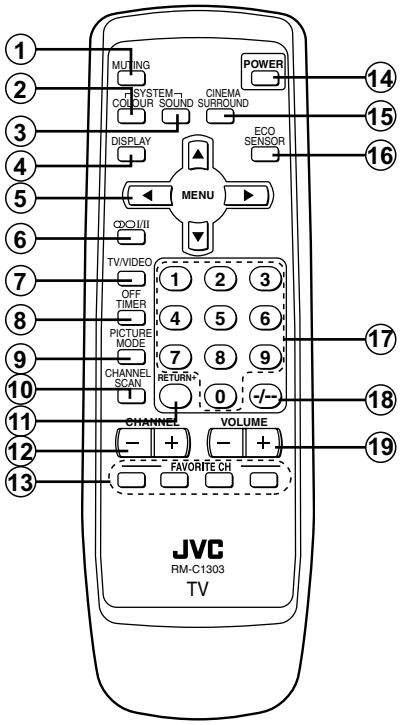
2.3 FUNCTIONS

■ REMOTE CONTROL UNIT
RM-C1305-1H [AV-21V311/B]



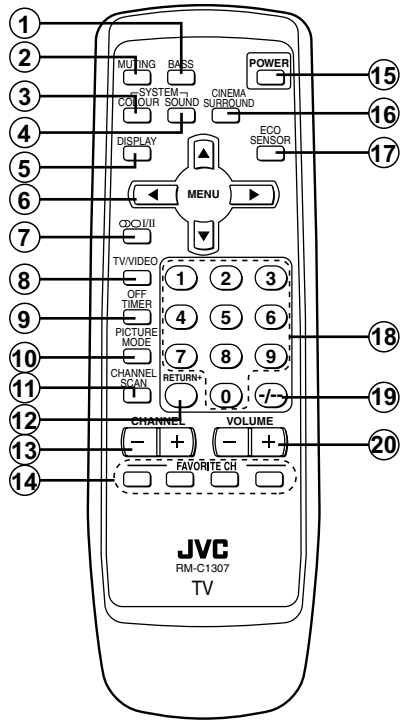
1. MUTING key
2. COLOUR SYSTEM key
3. SOUND SYSTEM key
4. DISPLAY key
5. MENU (▲/▼, ◀/▶) keys
6. SOUND setting key (Bilingual Ⅰ / Bilingual Ⅱ)
7. TV/VIDEO key
8. OFF TIMER key
9. PICTURE MODE key
10. CHANNEL SCAN key
11. RETURN + key
12. CHANNEL (-/+) keys
13. FAVORITE CH keys
14. POWER key
15. CINEMA SURROUND key
16. ECO SENSOR key
17. Number keys
18. -/-- key
19. VOLUME (-/+) keys

RM-C1303-1H [AV-21V511/B]



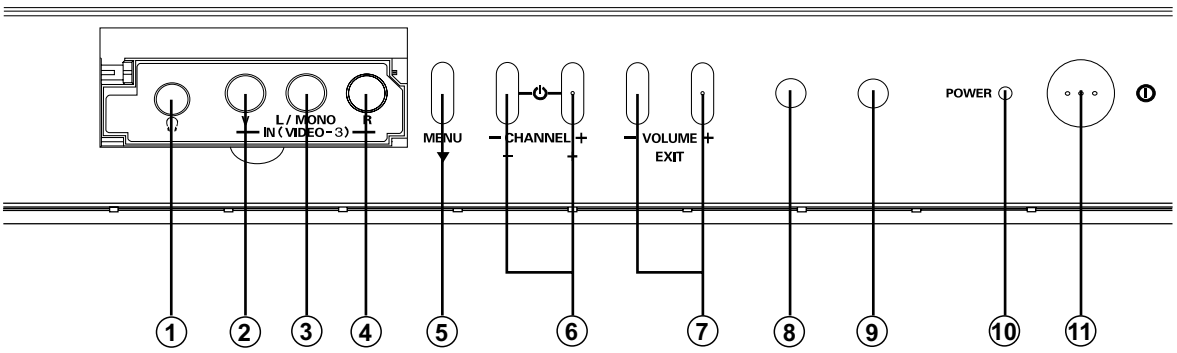
①	MUTING key
②	COLOUR SYSTEM key
③	SOUND SYSTEM key
④	DISPLAY key
⑤	MENU (▲/▼, ◀/▶) keys
⑥	SOUND setting key (Stereo/Bilingual Ⅰ/Bilingual Ⅱ/Monaural)
⑦	TV/VIDEO key
⑧	OFF TIMER key
⑨	PICTURE MODE key
⑩	CHANNEL SCAN key
⑪	RETURN + key
⑫	CHANNEL (-/+) keys
⑬	FAVORITE CH keys
⑭	POWER key
⑮	CINEMA SURROUND key
⑯	ECO SENSOR key
⑰	Number keys
⑱	-/-- key
⑲	VOLUME (-/+) keys

RM-C1307-1H [AV-21V531/B]



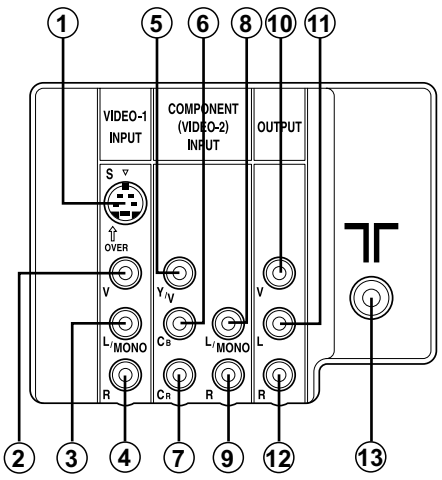
①	BASS key
②	MUTING key
③	COLOUR SYSTEM key
④	SOUND SYSTEM key
⑤	DISPLAY key
⑥	MENU (▲/▼, ◀/▶) keys
⑦	SOUND setting key (Stereo/Bilingual Ⅰ/Bilingual Ⅱ/Monaural)
⑧	TV/VIDEO key
⑨	OFF TIMER key
⑩	PICTURE MODE key
⑪	CHANNEL SCAN key
⑫	RETURN + key
⑬	CHANNEL (-/+) keys
⑭	FAVORITE CH keys
⑮	POWER key
⑯	CINEMA SURROUND key
⑰	ECO SENSOR key
⑱	Number keys
⑲	-/-- key
⑳	VOLUME (-/+) keys

■ FRONT PANEL CONTROLS

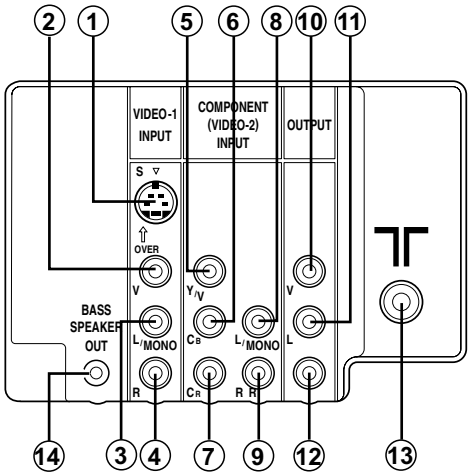


① HEADPHONE jack	⑦ VOLUME (-/+) buttons
② IN (VIDEO-3) : VIDEO	⑧ ECO sensor
③ IN (VIDEO-3) : AUDIO L/MONO	⑨ Remote control sensor
④ IN (VIDEO-3) : AUDIO R	⑩ POWER lamp
⑤ MENU (▾) button	⑪ MAIN POWER button
⑥ CHANNEL (-/+) buttons	

■ REAR TERMINAL



[AV-21V311/B,AV-21V511/B]



[AV-21V531/B]

VIDEO-1 INPUT TERMINAL

① S-VIDEO
② VIDEO
③ AUDIO L/MONO
④ AUDIO R

OUTPUT TERMINAL

⑩ VIDEO
⑪ AUDIO L
⑫ AUDIO R

COMPONENT (VIDEO-2) INPUT TERMINAL

⑤ Y/VIDEO
⑥ C_B
⑦ C_R
⑧ AUDIO L/MONO
⑨ AUDIO R

⑬ Aerial input terminal
⑭ BASS SPEAKER OUT

SECTION 3
DISASSEMBLY

3.1 DISASSEMBLY PROCEDURE

3.1.1 REMOVING THE TWIN PORT BASS BLASTER UNIT [AV-21V531/B]

- Unplug the power supply cord.
  (1) Disconnect the TWIN PORT BASS BLASTER UNIT's cord from the rear of the TV set.
  (2) Remove the TWIN PORT BASS BLASTER UNIT by pulling it upwards.

NOTE:

After removing the TWIN PORT BASS BLASTER UNIT, proceed to the following procedure.

3.1.2 REMOVING THE REAR COVER

- Unplug the power cord.
  (1) Remove the 9 screws **[A]** and 4 screws **[B]** as shown in Fig.1.
  (2) Withdraw the REAR COVER toward you.

CAUTION:

When reinstalling the rear cover, carefully push it inward after inserting the MAIN PWB into the REAR COVER groove.

3.1.3 REMOVING THE MAIN PW BOARD

- Remove the REAR COVER.
  (1) Slightly raise the both sides of the MAIN PWB by hand.
  (2) Withdraw the MAIN PWB backward.
  (If necessary, take off the wire clamp and connectors, etc.)

3.1.4 REMOVING THE SPEAKER

- Remove the REAR COVER.
  (1) Remove the 2 screws **[C]** as shown in Fig.1.
  (2) Follow the same steps when removing the other hand SPEAKER.

3.1.5 CHECKING THE MAIN PW BOARD

- To check the back side of the MAIN PWB.
  (1) Pull out the MAIN PWB. (Refer to REMOVING THE MAIN PW BOARD).
  (2) Erect the MAIN PWB vertically so that you can easily check its back side.

CAUTIONS:

- Before turning on power, make sure that the CRT earth wire and other connectors are properly connected.
- When repairing, connect the DEG. COIL to the DEG. connector on the MAIN PWB.

3.1.6 WIRE CLAMPING AND CABLE TYING

(1) Be sure to clamp the wire.
(2) Never remove the cable tie used for tying the wires together.
Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

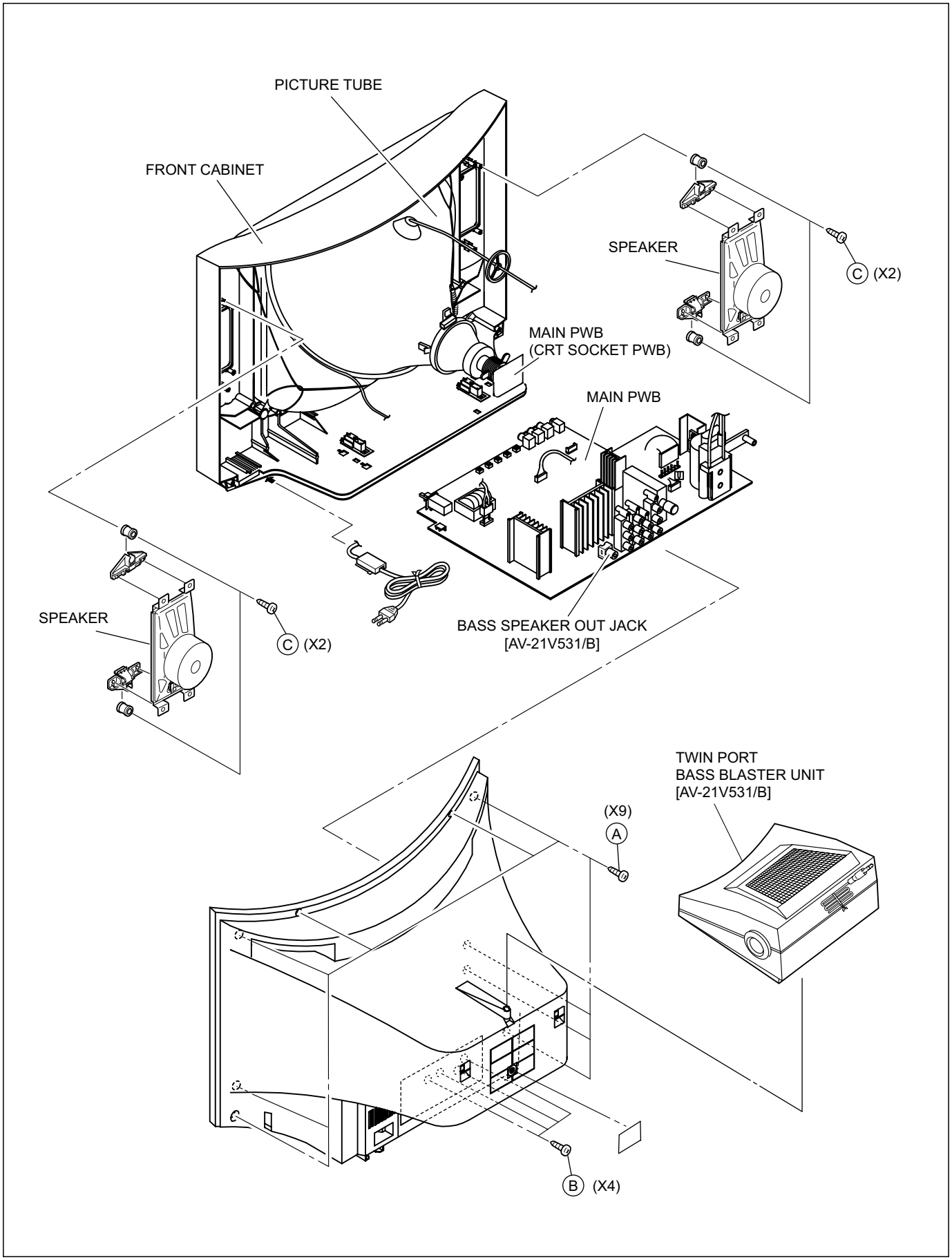

PICTURE TUBE
FRONT CABINET
SPEAKER
C (X2)
MAIN PWB
(CRT SOCKET PWB)
MAIN PWB
SPEAKER
C (X2)
BASS SPEAKER OUT JACK
[AV-21V531/B]
TWIN PORT
BASS BLASTER UNIT
[AV-21V531/B]
(X9)
A
B (X4)

Fig.1

3.2 REPLACEMENT OF MEMORY IC

3.2.1 MEMORY IC

This TV uses the following memory IC.

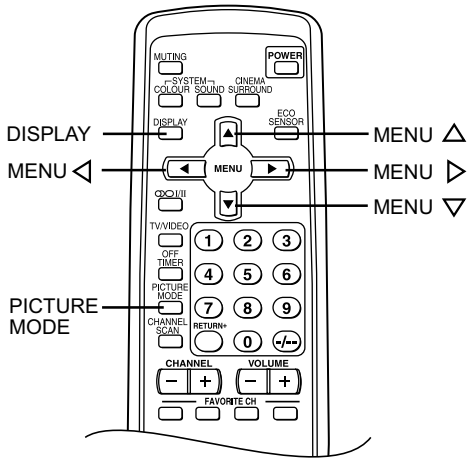
Memory IC: IC1702 on MAIN PW Board

The memory IC memorizes data for correctly operating the video and deflection circuits. When replacing the memory IC, be sure to use the same type IC written with the initial values of data. In other words, use the specific IC listed in "PRINTED WIRING BOARD PARTS LIST". For its mounting location, refer to "ADJUSTMENT LOCATIONS".

3.2.2 PROCEDURE FOR REPLACING MEMORY IC

1. **Power off**
   Switch the power off and unplug the power cord from the wall outlet.
2. **Replacing the memory IC**
   Replace the memory IC with new one. Be sure to use the memory IC written with the initial data values.
3. **Power on**
   Plug the power cord into the wall outlet and switch the power on.
4. **Check and setting of SYSTEM CONSTANT SET:**
   (1) Press the [DISPLAY] key and the [PICTURE MODE] key on the remote control unit simultaneously.
   The SERVICE MENU screen will be displayed.(See Fig.1.)
   (2) In the SERVICE MENU, press the [DISPLAY] key and [PICTURE MODE] key simultaneously. Then, the SYSTEM CONSTANT SET screen will be displayed.(See Fig.2.)
   (3) Check whether the setting values of the SYSTEM CONSTANT SET are the same as those indicated in Table1.
   If the value is different, select the setting item with the MENU [△]/[▽] key, and set the correct value with the MENU [◁]/[▷] key.
   (4) Press the [DISPLAY] key twice to return to the normal screen.
5. **Receive channel setting**
   Refer to the **OPERATING INSTRUCTIONS** and set the receive channels (channels preset).
6. **User setting**
   Check the user setting values in Table 2 and Table 3. If setting value is different, set the correct value.
   For setting, refer to the **OPERATING INSTRUCTIONS**.
7. **Setting of SERVICE MENU**
   Verify the setting for each setting item in the SERVICE MENU.(See Table 4.) If readjustment is necessary, perform adjustment referring to "ADJUSTMENTS PROCEDURE".

NAME OF REMOTE CONTROL KEYS



SERVICE MENU

SERVICE MENU

1. IF 2. VC
3. DEF 4. VSM PRESET
5. PRESET 6. A2NICAM
7. PLUG & PLAY (ON)

1-7 : SELECT DISPLAY : EXIT

******* **** ***** *****
**** **** *** ***

[AV-21V511/B, AV-21V531/B]

SERVICE MENU

1. IF 2. VC
3. DEF 4. VSM PRESET
5. PRESET
6. PLUG & PLAY (ON)

1-6 : SELECT DISPLAY : EXIT

******* **** ***** *****
**** **** *** ***

[AV-21V311/B]

Fig. 1

SYSTEM CONSTANT-Ⅰ

SYSTEM CONSTANT SET 1

SYSTEM	MULTI
COMB	NO
TILT	NO
SUPER BASS	NO
TEXT	NO
LANGUAGE	E/T

△▽: SEL −+ : OPE DISP : EXIT

SYSTEM CONSTANT-Ⅱ

SYSTEM CONSTANT SET 2

MSP	YES
BILINGUAL	NO
B / B SOUND	NO
TUNER	MU
COLOUR AUTO	NO

△▽: SEL −+ : OPE DISP : EXIT

SYSTEM CONSTANT-Ⅲ

SYSTEM CONSTANT SET 3

LOCK	1 MHz	: 040
	500 KHz	: 040
	250 KHz	: 040
	156. 25 KHz	: 030
	31.25 KHz	: 030

△▽: SEL −+ : OPE DISP : EXIT

SYSTEM CONSTANT-Ⅳ

SYSTEM CONSTANT SET 4

3D SURROUND	YES
AMP TUNER	NO
COMPONENT	YES
PIP	NO
16 : 9	YES
M.L. delete	ON

△▽: SEL −+ : OPE DISP : EXIT

Fig. 2

3.2.3 FACTORY SETTING VALUE

■SETTING OF SYSTEM CONSTANT SET

Setting item	Setting content	Setting value		
		AV-21V311/B	AV-21V511/B	AV-21V531/B
SYSTEM	MULTI → TRIPLE → PAL → SINGLE → VIET	SINGLE	MULTI	←
COMB	YES → NO	NO	←	←
TILT	YES → NO	NO	←	←
SUPER BASS	YES → NO	NO	←	YES
TEXT	ERCMI → ERAPU → NO	NO	←	←
LANGUAGE	E/T → E/V → E	E/T	←	←
MSP	YES → NO	NO	YES	←
BILINGUAL	YES → NO	YES	NO	←
B/B SOUND	YES → NO	NO	←	←
TUNER	MU → MA	MU	←	←
COLOUR AUTO	YES → NO	NO	←	←
LOCK 1MHz	000 → 240	040	←	←
500KHz	000 → 240	040	←	←
250KHz	000 → 240	040	←	←
156.25KHz	000 → 240	030	←	←
31.25KHz	000 → 240	030	←	←
3D SURROUND	YES → NO	YES	←	←
AMP TUNER	YES → NO	NO	←	←
COMPONENT	YES → NO	YES	←	←
PIP	YES → NO	NO	←	←
16 : 9	YES → NO	YES	←	←
M.L. delete	ON → OFF	ON	←	←

Table 1

■ **SETTING OF SWITCHES ON FRONT PANEL AND REMOTE CONTROL UNIT**

Setting item	Setting value
POWER	Off
SUB POWER	On
VOLUME	15
COLOR SYSTEM	PAL
SOUND SYSTEM	B/G
PICTURE MODE (VSM)	BRIGHT
CINEMA SURROUND	OFF
SUPER BASS	ON [AV-21V531/B]
OFF TIMER	00
BILINGUAL MODE	I (I/II) [AV-21V311/B]
STEREO MODE	STEREO [AV-21V511/B, AV-21V531/B]
CHANNEL POSITION	PRESET 1

Table 2

■ **SETTING OF MENU SCREEN**

Setting item	Setting value
INPUT	TV
VNR	OFF
COMPRESS (16:9)	OFF
AUTO SHUTOFF	OFF
CHILD LOCK	OFF
BLUE BACK	ON
VIDEO-2 SET	VIDEO
AUTO CH PRESET	Refer to OPERATING INSTRUCTIONS
MANUAL CH PRESET	Refer to OPERATING INSTRUCTIONS
LANGUAGE	THAI
TINT	Center
COLOUR	Center
BRIGHT	Center
CONT	Maximum
SHARP	Center
BASS	Center
TREBLE	Center
BALANCE	Center
AI VOLUME	ON
FAVORITE CH RED	PR1
FAVORITE CH GREEN	PR1
FAVORITE CH YELLOW	PR1
FAVORITE CH BLUE	PR1
AI ECO SENSOR	OFF
AI ECO DISPLAY	OFF

Table 3

■ **SERVICE MENU SETTING ITEMS**

Service menu	Setting item
1. IF	1. VCO 2. DELAY POINT
2. VC	1. CUTOFF(R/G) 2. DRIVE(R/G/B) 3. BRIGHT 4. CONT 5. COLOUR 6. TINT 7. SHARP 8. YDELAY **[Do not adjust]** 9. AMP T. SHARP
3. DEF	1. VER. SLOPE 2. VER. HEIGHT 3. VER. POSITION 4. VER. SCURVE 5. HOR. POSITION 6. HOR. WIDTH 7. EW-PIN 8. EW-TRAPEZ 9. UP CORNER 10. DW CORNER 11. HOR. PARALL 12. HOR. BOW 13. V. ZOOM
4. VSM PRESET **(BRIGHT/STANDARD/SOFT)** **[Do not adjust]**	1. TINT 2. COLOUR 3. BRIGHT 4. CONTRAST 5. SHARP

Service menu	Setting item
5. PRESET **[Do not adjust]**	1. PSNS 2. ACL 3. MUS 4. MAT 5. FCO 6. BPS 7. IFLH 8. VID 9. STM 10. AFCW 11. VSW 12. FFI 13. AGC 14. CL 15. AKB 16. HBL 17. BKS 18. READ STATUS 19. VNR 20. PEAK 21. IVG 22. WPL 23. SOFT CLIPPER 24. IF PLL OFFSET 25. OVERSHOOT 26. HCO 27. HP2 28. AI VOLUME ADN 29. SUB BASS 30. SUB TREBLE 31. SUB TRIMMER 32. CCCLOOP 33. OSD BRIGHTNESS
6. A2NICAM **[AV-21V511/B, AV-21V531/B]** **[Do not adjust]**	1. ERROR LIMIT 2. A2 ID THR 3. SOUND SYSTEM
6/7. PLUG & PLAY(ON) **[Do not adjust]**	

Table 4

3.3 REPLACEMENT OF CHIP COMPONENT

3.3.1 CAUTIONS

(1) Avoid heating for more than 3 seconds.
(2) Do not rub the electrodes and the resist parts of the pattern.
(3) When removing a chip part, melt the solder adequately.
(4) Do not reuse a chip part after removing it.

3.3.2 SOLDERING IRON

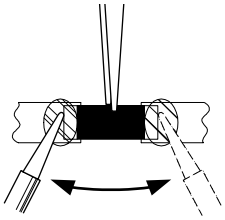
(1) Use a high insulation soldering iron with a thin pointed end of it.
(2) A 30w soldering iron is recommended for easily removing parts.

3.3.3 REPLACEMENT STEPS

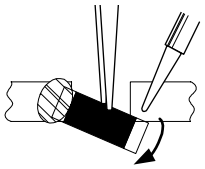
1. How to remove Chip parts

[Resistors, capacitors, etc.]

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

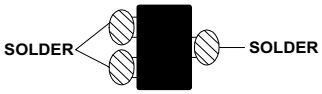


(2) Shift with tweezers and remove the chip part.

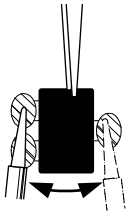


[Transistors, diodes, variable resistors, etc.]

(1) Apply extra solder to each lead.



(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

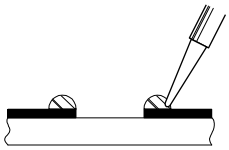


Note :
After removing the part, remove remaining solder from the pattern.

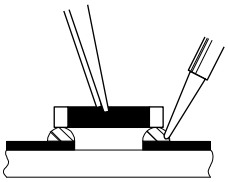
2. How to install Chip parts

[Resistors, capacitors, etc.]

(1) Apply solder to the pattern as indicated in the figure.

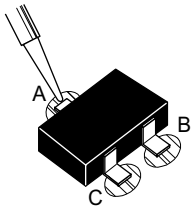


(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

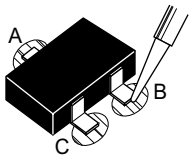


[Transistors, diodes, variable resistors, etc.]

(1) Apply solder to the pattern as indicated in the figure.
(2) Grasp the chip part with tweezers and place it on the solder.
(3) First solder lead A as indicated in the figure.



(4) Then solder leads B and C.



SECTION 4
ADJUSTMENT

4.1 ADJUSTMENT PREPARATION

(1) **You can make the necessary adjustments for this unit with either the remote control unit or with the adjustment equipment and parts as given below.**
(2) **Adjustment with the remote control unit is made on the basis of the initial setting values, however, the new setting values which set the screen to its optimum condition may differ from the initial settings.**
(3) Make sure that AC power is turned on correctly.
(4) Turn on the power for the set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
(5) Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
(6) Never touch any adjustment parts, which are not specified in the list for this variable resistors, transformers, trimmer capacitors, etc.
(7) Presetting before adjustment.
Unless otherwise specified in the adjustment instructions, preset the following functions with the remote control unit.

■ User mode setting position

Setting item	Setting value
PICTURE MODE (VSM)	BRIGHT
TINT, COLOUR, BRIGHT,SHARP	Center
CONT	Maximum
VNR	OFF
AI ECO SENSOR	OFF
BASS, TREBLE, BALANCE	Center

4.2 MEASURING INSTRUMENT AND FIXTURES

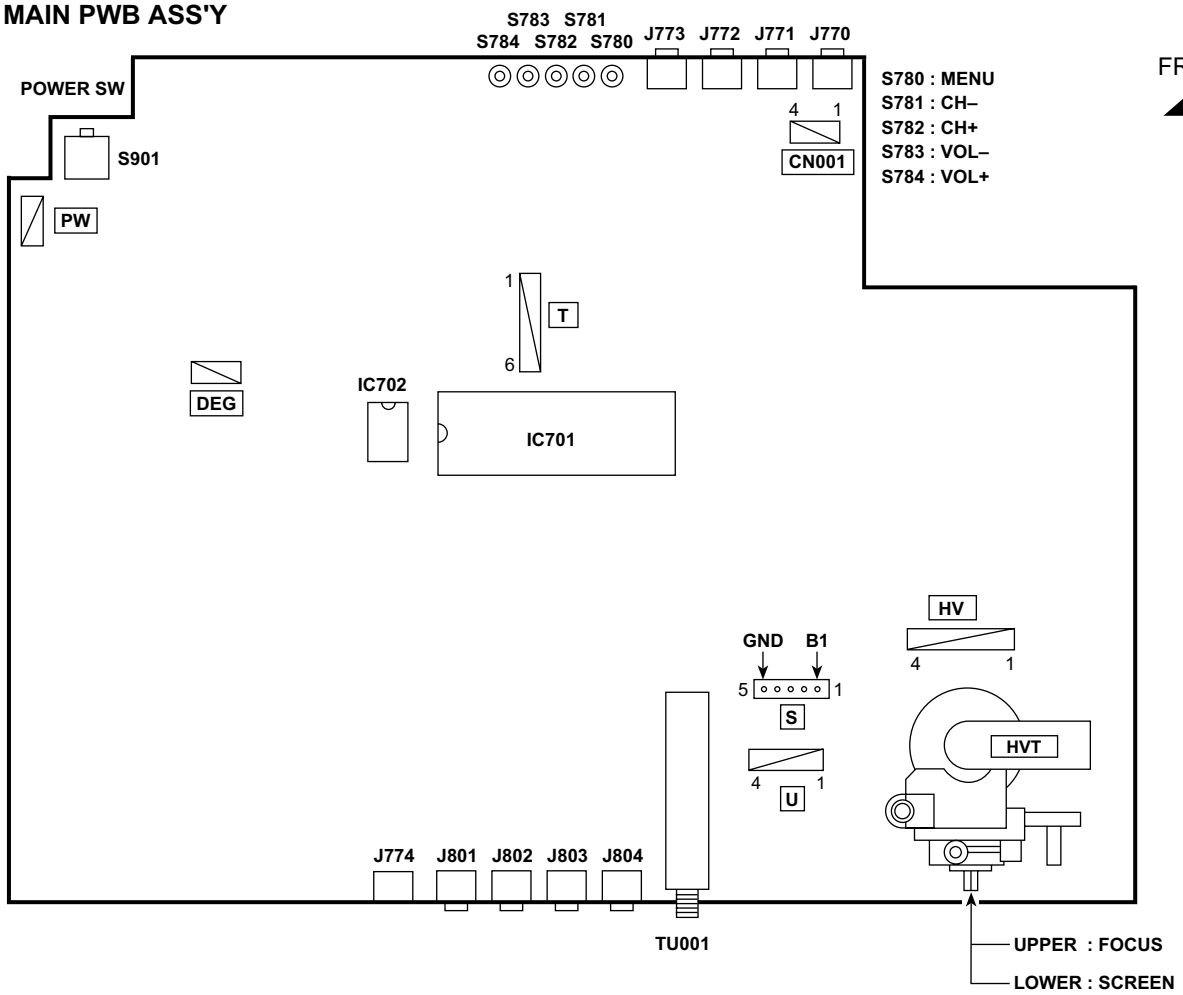
(1) DC voltmeter (or Digital voltmeter)
(2) Oscilloscope
(3) Signal generator (Pattern generator) [PAL/SECAM/NTSC]
(4) Remote control unit

4.3 ADJUSTMENT ITEMS

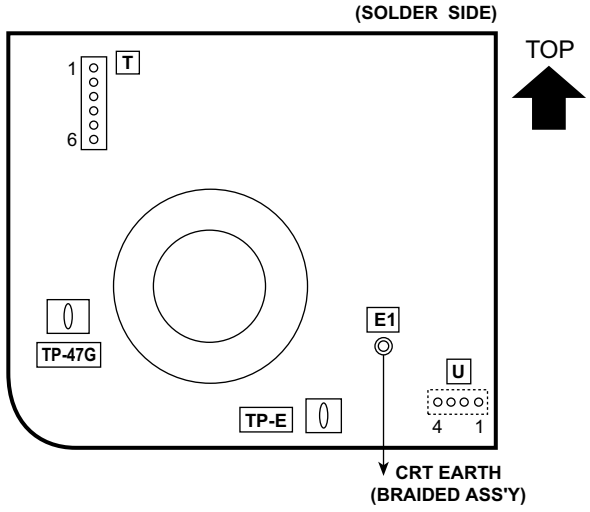
- ■ B1 POWER SUPPLY
- ■ FOCUS ADJUSTMENT
- ■ IF CIRCUIT ADJUSTMENTS
  - • IF VCO adjustment
  - • DELAY POINT (AGC TAKE-OVER) adjustment
- ■ VIDEO CIRCUIT ADJUSTMENTS
  - • WHITE BALANCE (Low light) adjustment
  - • WHITE BALANCE (High light) adjustment
  - • SUB BRIGHT adjustment
  - • SUB CONTRAST adjustment
  - • SUB COLOUR Ⅰ adjustment
  - • SUB COLOUR Ⅱ adjustment
  - • SUB TINT Ⅰ adjustment
  - • SUB TINT Ⅱ adjustment
- ■ DEFLECTION CIRCUIT ADJUSTMENTS
  - • V.SLOPE adjustment
  - • V.POSITION adjustment
  - • V.HEIGHT adjustment
  - • H.POSITION adjustment
  - • V.S-CURVE adjustment
  - • H.BOW adjustment
- ■ VSM PRESET SETTING
- ■ PRESET SETTING
- ■ A2NICAM SETTEING
  [AV-21V511/B, AV-21V531/B]
- ■ PURITY AND CONVERGENCE
  - • PURITY ADJUSTMENT
  - • STATIC CONVERGENCE ADJUSTMENT
  - • DYNAMIC CONVERGENCE ADJUSTMENT

4.4 ADJUSTMENT LOCATIONS

MAIN PWB ASS'Y



MAIN PWB ASS'Y (CRT SOCKET)



4.5 BASIC OPERATION IN SERVICE MENU

4.5.1 TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the remote control unit.

4.5.2 SERVICE MENU ITEMS

With the SERVICE MENU,various settings (adjustments) can be made,and they are broadly classified in the following items of settings:

1. IF	For entering/adjusting the setting values (adjustment values) of the IF circuit.
2. VC	For entering/adjusting the setting values (adjustment values) of the VIDEO circuit.
3. DEF	For entering/adjusting the setting values (adjustment values) of the DEFLECTION circuit.
4. VSM PRESET	For setting the values of STANDARD,SOFT and BRIGHT. (VSM:video status memory)
5. PRESET	For setting the values of the preset.
6. A2NICAM [AV-21V511/B, AV-21V531/B]	For entering/adjusting the setting values (adjustment values) of the multi-sound circuit.
6/7. PLUG & PLAY (ON)	This is not used for service.

4.5.3 BASIC OPERATION IN SERVICE MENU

1. HOW TO ENTER SERVICE MENU

Press the [DISPLAY] key and the [PICTURE MODE] key on the remote control unit simultaneously.
The SERVICE MENU screen will be displayed. (See Fig. 1 on the next page.)

2. SELECTION OF SUB MENU SCREEN

Press one of the keys 1 to 6 on the remote control unit,and select the SUB MENU SCREEN from the SERVICE MENU. (See Fig.1 on the next page.)

SERVICE MENU → SUB MENU
1. IF
2. VC
3. DEF
4. VSM PRESET
5. PRESET
6. A2NICAM [AV-21V511/B, AV-21V531/B]
6/7. PLUG & PLAY (ON)

3. METHOD OF SETTING

NOTES:
- Once the setting values are set, they are memorized automatically.
- It must not adjust without inputting a signal.

(1) 1. IF

[1.VCO] : Under normal conditions, no adjustment is required.

(a) [1] key	Select **1. IF**.
(b) [1] key	Select **1. VCO**.
(c) [DISPLAY] key	When this is pressed twice, you will return to the SERVICE MENU.

[2.DELAY POINT]

(a) [1] key	Select **1. IF**.
(b) [2] key	Select **2. DELAY POINT**.
(c) MENU [◁]/[▷] key	Adjust the setting value.
(d) [DISPLAY] key	When this is pressed twice, you will return to the SERVICE MENU.

(2) 2. VC, 3. DEF, 4. VSM PRESET, 5. PRESET and 6. A2NICAM

(a) [2] ~[6] keys	Select one from **2. VC**, **3. DEF**, **4. VSM PRESET**, **5. PRESET** and **6. A2NICAM**.
(b) MENU [▽]/[△] key	Select setting items.
(c) MENU [◁]/[▷] key	Adjust the setting values of the setting items. Use the number keys on the remote control unit for setting of WHITE BALANCE. For the setting, refer to each item concerned.
(d) [DISPLAY] key	When this is pressed, you will return to the SERVICE MENU.

(3) 6/7. PLUG & PLAY (ON)

This is not used for service.

4. Release of SERVICE MENU

After completing the setting, return to the SERVICE MENU by pressing the [DISPLAY] key, then again press the [DISPLAY] key to return to the normal screen.

4.5.4 SERVICE MENU FLOW CHART

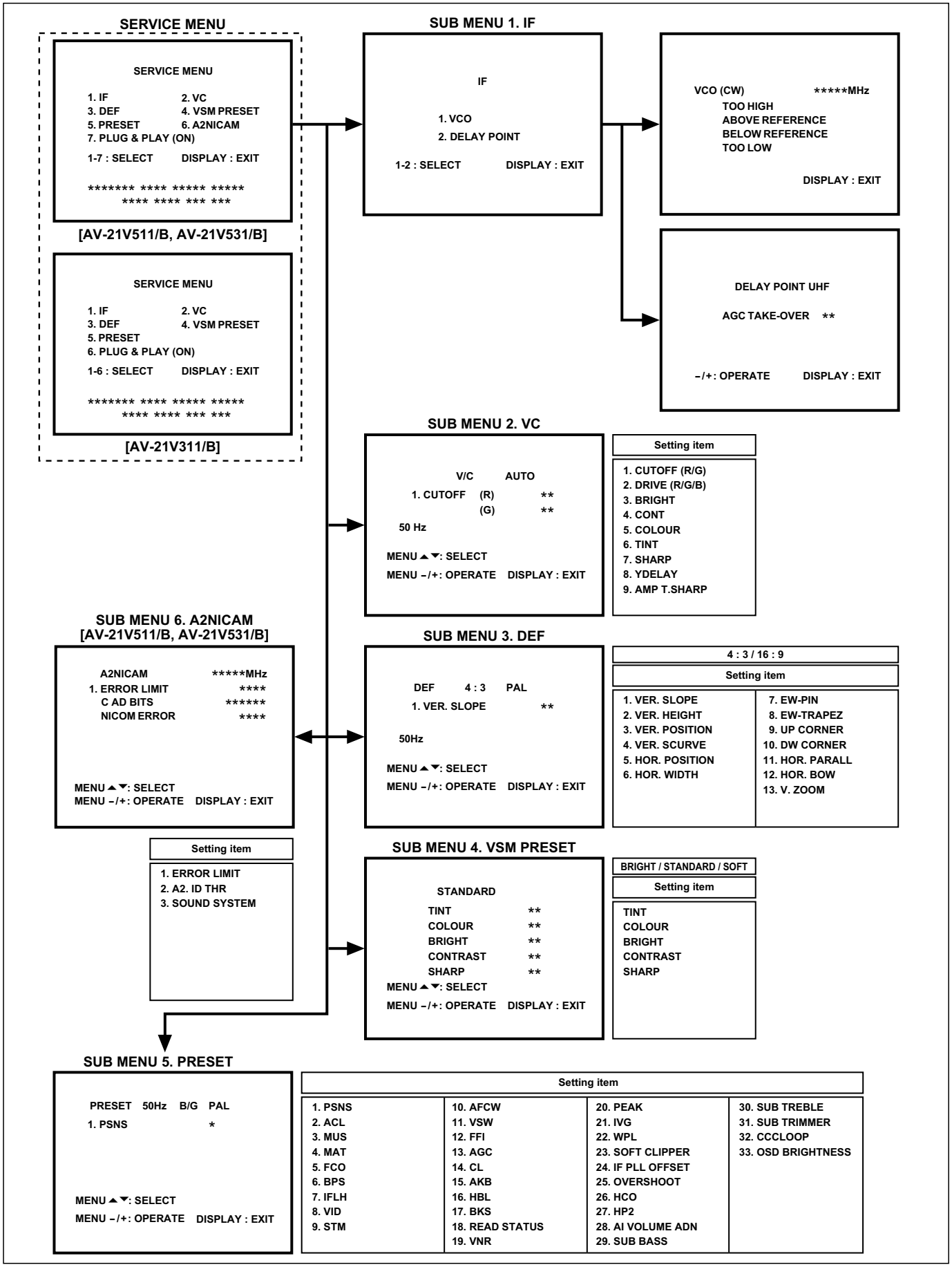


Fig. 1

4.6 ADJUSTMENT PROCEDURE

4.6.1 B1 POWER SUPPLY

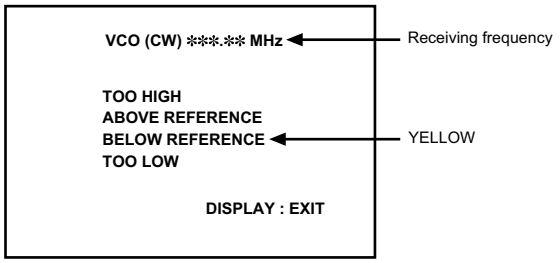
Item	Measuring instrument	Test point	Adjustment part	Description
B1 POWER SUPPLY check	**Signal generator** **DC voltmeter**	**B1 (pin 1) GND (pin 5) [CN00S connector in MAIN PWB]**		(1) Receive a black and white signal. (2) Connect a DC voltmeter between B1 and GND (between pins 1 and 5 of the connector CN00S). (3) Make sure that the voltage is **DC135V ± 2V**.

4.6.2 FOCUS ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS adjustment	**Signal generator**		**FOCUS VR [In HVT]**	**Notes:** • Set PICTURE MODE (VSM) to "BRIGHT". • The final adjustment of CONVERGENCE must be done after the FOCUS adjustment. (CONVERGENCE is changed by FOCUS adjustment.) When makes difference by FOCUS adjustment, should be reconfirming PURITY adjustment. (1) Receive a cross-hatch signal. (2) While looking at the screen centre, adjust the **FOCUS VR** so that the vertical and horizontal lines will be clear and in fine detail. (3) Make sure that the picture is in focus even when the screen gets darkened.

4.6.3 IF CIRCUIT ADJUSTMENTS

Item	Measuring instrument	Test point	Adjustment part	Description
IF VCO adjustment	**Remote control unit**		**[1. IF]** **1. VCO (CW)**	**Note:** • Under normal conditions, no adjustment is required. (1) Select **1. IF** from the SERVICE MENU. (2) Select **1. VCO**. (3) Receive a broadcast signal. (4) Check the characters colour of the **BELOW REFERENCE** displayed to **yellow**. (5) Press the [DISPLAY] key three times to return to normal screen.
DELAY POINT (AGC TAKE-OVER) adjustment	**Remote control unit**		**[1. IF]** **2. DELAY POINT**	(1) Receive a black and white broadcast signal (colour off). (2) Select **1. IF** from the SERVICE MENU. (3) Select **2. DELAY POINT**. (4) Adjust in order to eliminate any noise or beat from the image. Any increase above the initial value produces noise and any decrease below it produces beat. (5) Press the [DISPLAY] key three times to return to the normal screen. (6) Turn to other channels and make sure that there are no irregularities.



Adjustment item	Initial setting value			
	NTSC 3.58		OTHERS	
	VHF	UHF	VHF	UHF
2. DELAY POINT (AGC TAKE-OVER)	28	24	28	28

4.6.4 VIDEO CIRCUIT ADJUSTMENTS

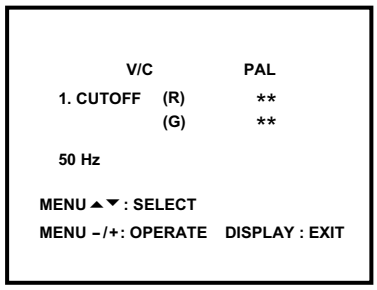
- The setting (adjustment) using the remote control unit is made on the basis of the initial setting values.
- The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- Do not change the initial setting values of the setting (adjustment) items not listed in “ADJUSTMENT PROCEDURE”.

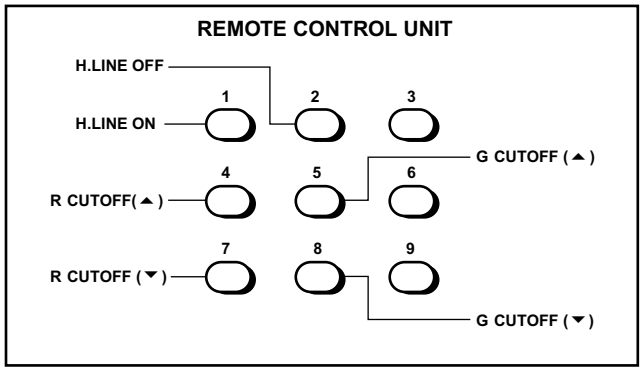
Note :
AV-21V311/B don’t have the NTSC system on TV mode.

[SUB MENU 2. VC]

Adjustment item	Variable range	Initial setting value				
		PAL	SECAM	NTSC3.58	NTSC4.43	COMPONENT(V-2)
1. CUT OFF (R/G)	-32 – +31	0/0	←	←	←	←
2. DRIVE (R/G/B)	-32 – +31	0/0/0	←	←	←	←
3. BRIGHT (TV/V-1/V-2/V-3)	-32 – +31	-18/0/0/+1	←	←	←	– / – /0/ –
4. CONT	-32 – +31	-20	←	←	←	–
5. COLOUR	-32 – +31	-5	-3	-12	-2	–1
6. TINT (TV/VIDEO)	-32 – +31	–	–	-15/+2	+1/+1	–
7. SHARP (TV/VIDEO) **[Do not adjust]**	-32 – +31	-10/0	←	←	←	–/0
8. Y DELAY (TV/VIDEO/S-VIDEO) **[Do not adjust]**	-8 – +7	-7/0/0	-2/0/0	-7/0/0	-2/0/0	–
9. AMP T. SHARP **[Do not adjust]**	-32 – +31	0	←	←	←	←

Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE (Low light) adjustment	**Signal generator** **Remote control unit**		**[2. VC]** **1.CUTOFF (R)** **1.CUTOFF (G)** **SCREEN VR** **[In HVT]**	**Note:** • Set PICTURE MODE (VSM) to “BRIGHT”. (1) Receive a PAL black and white signal (colour off). (2) Select **2. VC** from the SERVICE MENU. (3) Select **1. CUTOFF (R)** and **(G)**, and set each value to initial setting value with the **[4]** and **[7]** keys, or **[5]** and **[8]** keys. (4) Press the **[1]** key to produce a single horizontal line. (5) Turn the **SCREEN VR** fully counterclockwise, then slowly turn it clockwise to where a red, blue or green colour is faintly visible. (6) Use the **[4]** and **[7]** or **[5]** and **[8]** keys and adjust the other 2 colours to where the single horizontal line appears white. (7) Turn the **SCREEN VR** to where the single horizontal line glows faintly. (8) Press the **[2]** key to return to **1. CUTOFF** screen. (9) Press the [DISPLAY] key twice to return to the normal screen.



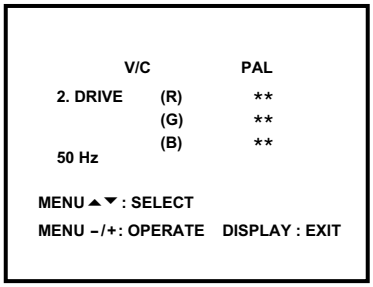


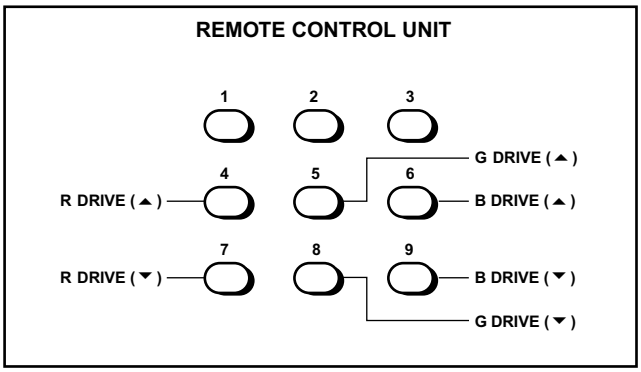
Adjustment Item		Variable range	Initial setting value
1. CUT OFF	R	–32 — +31	0
	G	–32 — +31	0

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>WHITE BALANCE (High light) adjustment</td><td>Signal generator

Remote control unit</td><td></td><td>[2. VC]
2. DRIVE (R)
2. DRIVE (G)
2. DRIVE (B)</td><td>Notes:
• Proceed to the following adjustment after having completed the WHITE BALANCE (Low light) adjustment.
• Set PICTURE MODE (VSM) to “BRIGHT”.

(1) Receive a PAL black and white signal (colour off).
(2) Select 2. VC from the SERVICE MENU.
(3) Select 2. DRIVE (R), (G) and (B), and set each value to initial setting value with the [4] to [9] keys.
(4) Use the [4] to [9] keys to produce a white screen.
(5) Press the [DISPLAY] key twice to return to the normal screen.

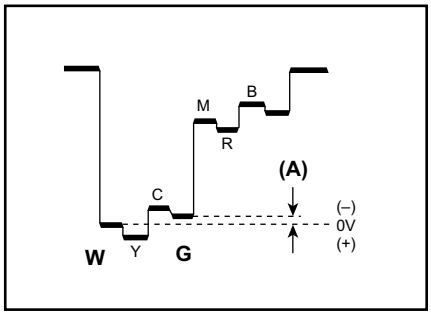
<table>
<tr><th colspan="2">Adjustment Item</th><th>Variable range</th><th>Initial setting value</th></tr>
<tr><td rowspan="3">2. DRIVE</td><td>R</td><td>–32 — +31</td><td>0</td></tr>
<tr><td>G</td><td>–32 — +31</td><td>0</td></tr>
<tr><td>B</td><td>–32 — +31</td><td>0</td></tr>
</table></td></tr>
<tr><td>SUB BRIGHT adjustment</td><td>Remote control unit</td><td></td><td>[2. VC]
3. BRIGHT</td><td>Notes:
• Proceed to the following adjustment after having completed the WHITE BALANCE (Low light) and WHITE BALANCE (High light) adjustment.
• Set PICTURE MODE (VSM) to “BRIGHT”.

(1) Receive a broadcast.
(2) Select 2. VC from the SERVICE MENU.
(3) Select 3. BRIGHT.
(4) Set the initial setting value.
(5) If the brightness is not best with the initial setting value, make fine adjustment until you get the best brightness.
(6) Press the [DISPLAY] key twice to return to the normal screen.</td></tr>
<tr><td>SUB CONTRAST adjustment</td><td>Remote control unit</td><td></td><td>[2. VC]
4. CONT</td><td>Notes:
• Proceed to the following adjustment after having completed the SUB BRIGHT adjustment.
• Set PICTURE MODE (VSM) to “BRIGHT”.

(1) Receive a broadcast.
(2) Select 2. VC from the SERVICE MENU.
(3) Select 4. CONT.
(4) Set the initial setting value.
(5) If the contrast is not best with the initial setting value, make fine adjustment until you get the best contrast.
(6) Press the [DISPLAY] key twice to return to the normal screen.</td></tr>
</table>

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>SUB COLOUR Ⅰ adjustment</td><td>Remote control unit</td><td></td><td>[2. VC]
5. COLOUR</td><td>[Method of adjustment without measuring instrument]
Notes:
• Proceed to the following adjustment after having completed the SUB CONTRAST adjustment.
• Set PICTURE MODE (VSM) to “BRIGHT”.
– PAL COLOUR –
(1) Receive a PAL broadcast.
(2) Select 2. VC from the SERVICE MENU.
(3) Select 5. COLOUR.
(4) Set the initial setting value for PAL COLOUR.
(5) If the colour is not best with the initial setting value, make fine adjustment until you get the best colour.
(6) Press the [DISPLAY] key twice to return to the normal screen.
– SECAM COLOUR –
(1) Receive a SECAM broadcast.
(2) Press the [COLOUR SYSTEM] key to select the SECAM colour system.
(3) Make fine adjustment of SECAM COLOUR in the same way as for “PAL COLOUR”.
– NTSC 3.58 COLOUR –
(1) Receive a NTSC 3.58MHz broadcast.
(2) Press the [COLOUR SYSTEM] key to select the NTSC 3.58 colour system.
(3) Make similar fine adjustment of NTSC 3.58 COLOUR in the same way as for “PAL COLOUR”.
– NTSC 4.43 COLOUR –
When adjustment is done for NTSC 3.58 COLOUR, appropriate values are automatically set for NTSC 4.43 COLOUR.</td></tr>
<tr><td>SUB COLOUR Ⅱ adjustment</td><td>Signal generator

Oscilloscope

Remote control unit</td><td>TP-47G
TP-E (⏚)
[CRT SOCKET PWB]</td><td>[2. VC]
5. COLOUR</td><td rowspan="2">[Method of adjustment using measuring instrument]
Notes:
• Proceed to the following adjustment after having completed the SUB CONTRAST adjustment.
• Set PICTURE MODE (VSM) to “BRIGHT”.
– PAL COLOUR –
(1) Receive a PAL colour bar signal (full field colour bar 75% white).
(2) Select 2. VC from the SERVICE MENU.
(3) Select 5. COLOUR.
(4) Set the initial setting value of PAL COLOUR.
(5) Connect the oscilloscope between TP-47G and TP-E.
(6) Adjust PAL COLOUR to set the value (A) in the figure to (V_{W-G}) shown in the table.
– SECAM COLOUR –
(1) Receive a SECAM colour bar signal (full field colour bar 75% white).
(2) Press the [COLOUR SYSTEM] key to select the SECAM colour system.
(3) Set the initial setting value of SECAM COLOUR.
(4) Adjust SECAM COLOUR to set the value (A) in the figure to (V_{W-G}) shown in the table.
– NTSC 3.58 COLOUR –
(1) Receive a NTSC 3.58 colour bar signal (full field colour bar 75% white).
(2) Press the [COLOUR SYSTEM] key to select the NTSC 3.58 colour system.
(3) Set the initial setting value of NTSC 3.58 COLOUR.
(4) Adjust NTSC 3.58 COLOUR to set the value (A) in the figure to (V_{W-G}) shown in the table.
– NTSC 4.43 COLOUR –
When adjustment is done for NTSC 3.58 COLOUR, appropriate values are automatically set for NTSC 4.43 COLOUR.</td></tr>
<tr><td colspan="4"> 

<table>
<tr><th>(V_{W-G})</th><th>AV-21V311/B
AV-21V511/B</th><th>AV-21V531/B</th></tr>
<tr><td>PAL</td><td>+14V</td><td>+17V</td></tr>
<tr><td>SECAM</td><td>+2V</td><td>+6V</td></tr>
<tr><td>NTSC</td><td>+2V</td><td>+5V</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>SUB TINT Ⅰ adjustment</td><td>Signal generator

Remote control unit</td><td></td><td>[2. VC]
6. TINT</td><td>[Method of adjustment without measuring instrument]
Notes:
• Proceed to the following adjustment after having completed the SUB CONTRAST adjustment.
• Set PICTURE MODE (VSM) to “BRIGHT”.

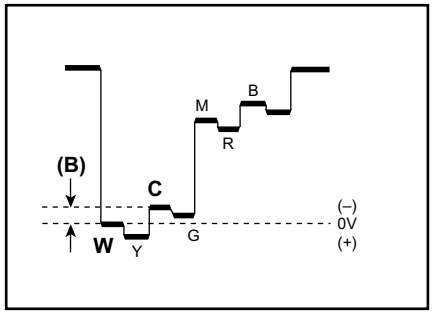
– NTSC 3.58 TINT –
(1) Receive a NTSC 3.58 colour bar signal (full field colour bar 75% white).
(2) Press the [COLOUR SYSTEM] key to select the NTSC 3.58 colour system.
(3) Select 2. VC from the SERVICE MENU.
(4) Select 6. TINT.
(5) Set the initial setting value of NTSC 3.58.
(6) If you cannot get the best tint with the initial setting value, make fine adjustment until you get the best tint.
(7) Press the [DISPLAY] key twice to return to the normal screen.

– NTSC 4.43 TINT –
When adjustment is done for NTSC 3.58 TINT, appropriate values are automatically set for NTSC 4.43 TINT.</td></tr>
<tr><td>SUB TINT Ⅱ adjustment</td><td>Signal generator

Oscilloscope

Remote control unit</td><td>TP-47G
TP-E (⏚)
[CRT SOCKET PWB]</td><td>[2. VC]
6. TINT</td><td>[Method of adjustment using measuring instrument]
Notes:
• Proceed to the following adjustment after having completed the SUB CONTRAST adjustment.
• Set PICTURE MODE (VSM) to “BRIGHT”.

– NTSC 3.58 TINT –
(1) Receive a NTSC 3.58 colour bar signal (full field colour bar 75% white).
(2) Press the [COLOUR SYSTEM] key to select the NTSC 3.58 colour system.
(3) Select 2. VC from the SERVICE MENU.
(4) Select 6. TINT.
(5) Set the initial setting value of NTSC 3.58.
(6) Connect the oscilloscope between TP-47G and TP-E.
(7) Adjust NTSC 3.58 TINT to set the value (B) in the figure to (V_{W-C}) shown in the table.
(8) Press the [DISPLAY] key twice to return to the normal screen.

– NTSC 4.43 TINT –
When adjustment is done for NTSC 3.58 TINT, appropriate values are automatically set for NTSC 4.43 TINT.</td></tr>
<tr><td colspan="4"> 

<table>
<tr><th>(V_{W-C})</th><th>AV-21V311/B
AV-21V511/B</th><th>AV-21V531/B</th></tr>
<tr><td>NTSC</td><td>+2V</td><td>+6V</td></tr>
</table></td></tr>
</table>

4.6.5 DEFLECTION CIRCUIT ADJUSTMENTS

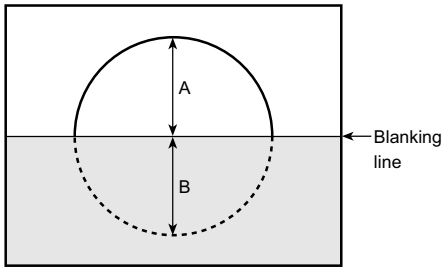
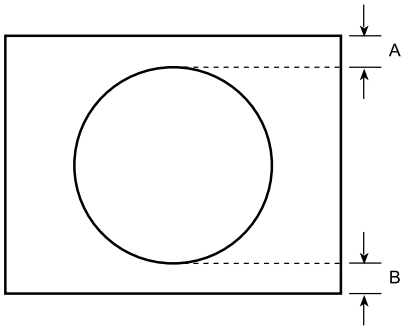
- The setting (adjustment) using the remote control unit is made on the basis of the initial setting values.
- The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- When performing deflection circuit adjustment, adjusts PAL signal (fv: 50 Hz) in 4:3 mode and 16:9 mode respectively, and adjust the NTSC signal (fv: 60 Hz) similarly.

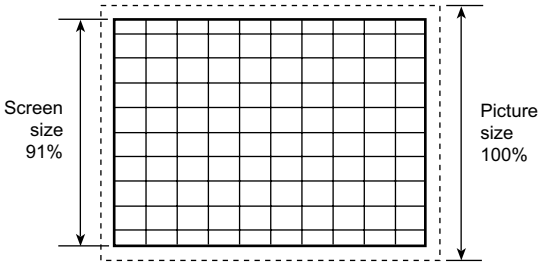
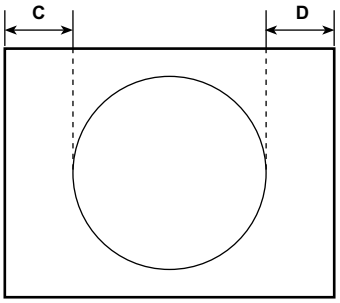
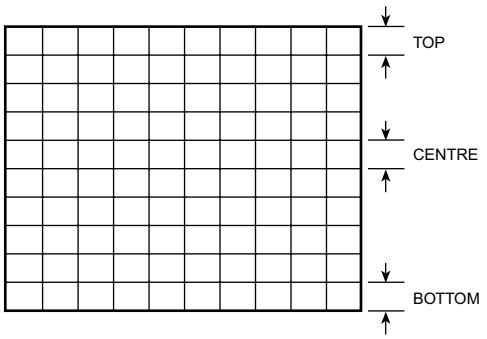
Note:
Proceed to the following adjustment after having completed the adjustments of SUB BRIGHT and SUB PICTURE.

■ SUB MENU 3. DEF

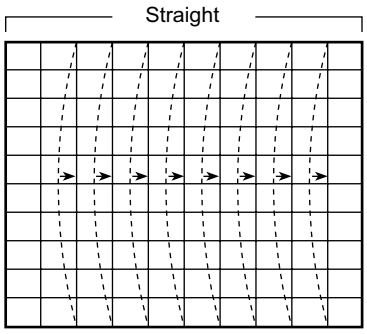
Adjustment item	Variable range	Initial setting value				
		4:3		COMPRESS (16:9)		COMPONENT (50Hz)
		50Hz	60Hz	50Hz	60Hz	
1. VER. SLOPE	–32 — +31	+2	–0	+2	–0	—
2. VER. HEIGHT	–32 — +31	0	0	+31	+31	—
3. VER. POSITION	–32 — +31	+2	+1	+2	–2	—
4. VER. SCURVE	–32 — +31	–8	–6	–8	+2	—
5. HOR. POSITION	–32 — +31	+2	+6	+2	+6	+7
6. HOR. WIDTH	–32 — +31	–0	–0	–0	–0	—
7. EW-PIN	–32 — +31	–0	–0	–0	–0	—
8. EW-TRAPEZ	–32 — +31	–0	–0	–0	–0	—
9. UP CORNER	–32 — +31	–0	–0	–0	–0	—
10. DW CORNER	–32 — +31	–0	–0	–0	–0	—
11. HOR. PARALL	–32 — +31	–0	–0	–7	–0	—
12. HOR. BOW	–32 — +31	–0	–0	–0	–0	—
13. V.ZOOM	–32 — +31	0	0	–25	–25	—

■ COMPRESS : OFF (4:3), fv: 50Hz/60Hz mode

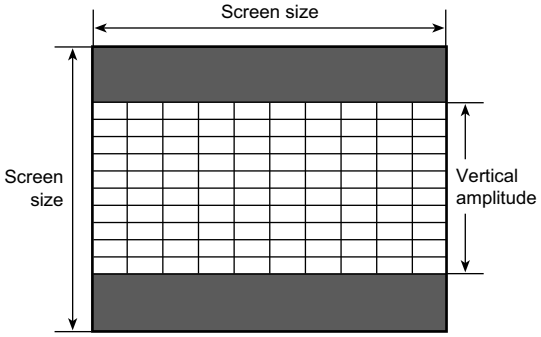
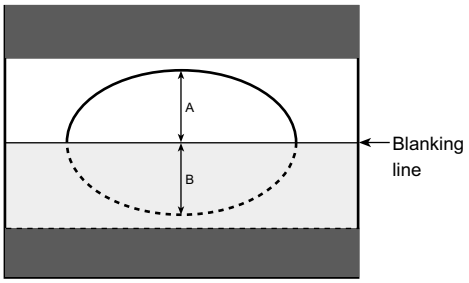
Item	Measuring instrument	Test point	Adjustment part	Description
V. SLOPE adjustment	**Signal generator** **Remote control unit**		**[3. DEF]** **1. VER. SLOPE**	**– PAL V. SLOPE –** (1) Receive a PAL circle pattern signal of vertical frequency 50Hz. (2) Select **3. DEF** from the SERVICE MENU. (3) Select **1. VER. SLOPE**. (4) Set the initial setting value of **1. VER. SLOPE**. (5) Adjust **1. VER. SLOPE** to make "**A = B**". (6) Press the [DISPLAY] key to refurn to SERVICE MENU screen. **– NTSC V. SLOPE –** (1) Receive a NTSC circle pattern signal of vertical frequency 60Hz. (2) Make similar adjustment of NTSC V. SLOPE in the same way as for "PAL V. SLOPE".
				
V. POSITION adjustment	**Signal generator** **Remote control unit**		**[3. DEF]** **3. VER. POSITION**	**– PAL V. POSITION –** (1) Receive a PAL circle pattern signal of vertical frequency 50Hz. (2) Select **3. VER. POSITION**. (3) Set the initial setting value of **3. VER. POSITION**. (4) Adjust **3. VER. POSITION** to make "**A = B**". **– NTSC V. POSITION –** (1) Receive a NTSC circle pattern signal of vertical frequency 60Hz. (2) Make similar adjustment of NTSC V. POSITION in the same way as for "PAL V. POSITION".
				

Item	Measuring instrument	Test point	Adjustment part	Description
V. HEIGHT adjustment	**Signal generator** **Remote control unit**		**[3. DEF]** **2. VER. HEIGHT** **13. V. ZOOM**	**– PAL V. HEIGHT –** (1) Receive a PAL cross-hatch signal. (2) Select **2. VER. HEIGHT**. (3) Set the initial setting value of **2. VER. HEIGHT**. (4) Select **13. V. ZOOM**. (5) Set the initial setting value of **13. V. ZOOM**. (6) Adjust **13. V. ZOOM** and make the vertical screen size 91% of the picture size. **– NTSC V. HEIGHT –** (1) Receive a NTSC cross-hatch signal. (2) Make similar adjustment of NTSC V. HEIGHT in the same way as for “PAL V. HEIGHT”.
				
H. POSITION adjustment	**Signal generator** **Remote control unit**		**[3. DEF]** **5. HOR. POSITION**	**– PAL H. POSITION –** (1) Receive a PAL circle pattern signal. (2) Select **5. HOR. POSITION**. (3) Set the initial setting value of **5. HOR. POSITION**. (4) Adjust **5. HOR. POSITION** to make “**C = D**”. **– NTSC H. POSITION –** (1) Receive a NTSC circle pattern signal. (2) Make similar adjustment of NTSC H. POSITION in the same way as for “PAL H. POSITION”.
				
V.S-CURVE adjustment	**Signal generator** **Remote control unit**		**[3. DEF]** **4. VER. SCURVE**	**– PAL V. S-CURVE –** (1) Receive a PAL cross-hatch signal. (2) Select **4. VER. SCURVE**. (3) Set the initial setting value of **4. VER. SCURVE**. (4) Adjust **4. VER. SCURVE** so that the spaces of each line on TOP, CENTRE and BOTTOM become uniform. **– NTSC V. S-CURVE –** (1) Receive a NTSC cross-hatch signal. (2) Make similar adjustment of NTSC V. S-CURVE in the same way as for “PAL V. S-CURVE”.
				

Item	Measuring instrument	Test point	Adjustment part	Description
H. BOW adjustment	**Signal generator** **Remote control unit**		**[3.DEF]** **12. HOR. BOW**	**– PAL H. BOW –** (1) Receive a PAL cross-hatch signal. (2) Select **12. HOR. BOW**. (3) Set the initial setting value of **12. HOR. BOW**. (4) Adjust **12. HOR. BOW** to optimize the horizontal arc distortion. **– NTSC H. BOW –** (1) Receive a NTSC cross-hatch signal. (2) Make similar adjustment of NTSC H. BOW in the same way as for “PAL H. BOW”. (3) Press the [DISPLAY] key twice to return to the normal screen.

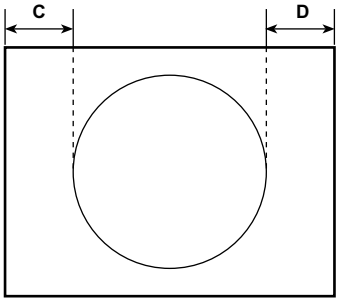


■ **COMPRESS : ON (16:9), fv: 50Hz/60Hz mode**

Item	Measuring instrument	Test point	Adjustment part	Description
V. HEIGHT adjustment	**Signal generator** **Remote control unit**		**[3.DEF]** **13. V. ZOOM** **2. VER. HEIGHT**	**– PAL V. HEIGHT –** (1) Receive a PAL cross-hatch signal of vertical frequency 50Hz. (2) Select COMPRESS from the MENU and set COMPRESS to ON. (3) Select **3. DEF** from the SERVICE MENU. (4) Set the initial setting value of **13. V. ZOOM**. (5) Select **2. VER. HEIGHT**. (6) Set the initial setting value of **2. VER. HEIGHT**. (7) Adjust **2. VER. HEIGHT** to set the vertical amplitude of the image to 235mm. **– NTSC V. HEIGHT –** (1) Receive a NTSC cross-hatch signal of vertical frequency 60Hz. (2) Make similar adjustment of NTSC V. HEIGHT in the same way as for “PAL V. HEIGHT”.
				
V. SLOPE adjustment	**Signal generator** **Remote control unit**		**[3.DEF]** **1. VER. SLOPE**	**– PAL V. SLOPE –** (1) Receive a PAL circle pattern signal of vertical frequency 50Hz. (2) Select **3. DEF** from the SERVICE MENU. (3) Select **1. VER. SLOPE**. (4) Set the initial setting value of **1. VER. SLOPE**. (5) Adjust **1. VER. SLOPE** to make “**A = B**”. (6) Press the [DISPLAY] key to return to SERVICE MENU screen. **– NTSC V. SLOPE –** (1) Receive a NTSC circle pattern signal of vertical frequency 60Hz. (2) Make similar adjustment of NTSC V. SLOPE in the same way as for “PAL V. SLOPE”. (3) Press the [DISPLAY] key twice to return to the normal screen.
				

■ **VIDEO - 2 SET : COMPONENT, fv: 50/60Hz mode**

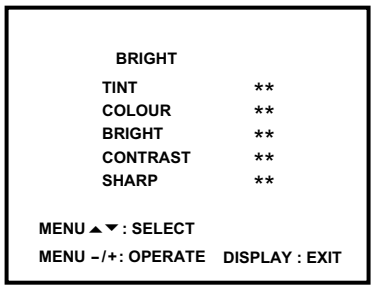
Item	Measuring instrument	Test point	Adjustment part	Description
H. POSITION adjustment	**Signal generator** **Remote control unit**		**[3. DEF]** **5. HOR. POSITION**	(1) Receive a PAL circle pattern signal to VIDEO-2 terminal. (2) Select VIDEO-2 SET from the MENU and set VIDEO-2 SET to COMPONENT. (3) Select **3. DEF** from the SERVICE MENU. (4) Select **5. HOR. POSITION**. (5) Set the initial setting value of **5. HOR. POSITION**. (6) Adjust **5. HOR POSITION** to make "**C=D**". (7) Press the [DISPLAY] key twice to return to the normal screen.



4.6.6 VSM PRESET SETTING

Item	Measuring instrument	Test point	Adjustment part	Description
VSM PRESET setting	**Remote control unit**		**[4. VSM PRESET]** **1. TINT** **2. COLOUR** **3. BRIGHT** **4. CONTRAST** **5. SHARP**	(1) Select **4. VSM PRESET** from the SERVICE MENU. (2) Select BRIGHT with the [PICTURE MODE] key. (3) Adjust to reset the set values of **1. TINT** – **5. SHARP** to the values shown in the table. (4) Respectively select the VSM PRESET mode for SOFT and STANDARD, and make similar adjustment as in 3 above. (5) Press the [DISPLAY] key twice to return to the normal screen.

SUB MENU 4. VSM PRESET



[Setting Values for SUB 4. VSM PRESET]

VSM setting item \ VSM preset mode	BRIGHT	STANDARD	SOFT
1. TINT	15	←	←
2. COLOUR	15	←	←
3. BRIGHT	15	19	←
4. CONTRAST	30	15	11
5. SHARP	15	←	7

4.6.7 PRESET SETTING

• Do not adjust **5. PRESET** in the SERVICE MENU as it requires no adjustment.

[SUB MENU 5. PRESET]

Setting item	Variable range	Initial setting value	
		AV-21V311/B AV-21V511/B	AV-21V531/B
1. PSNS	0/1	0	←
2. ACL	0/1	0	←
3. MUS	0/1	0	←
4. MAT	0/1	0	←
5. FCO	0/1	0	←
6. BPS	0/1	0	←
7. IFLH	0/1	0	←
8. VID	0/1	0	←
9. STM	0/1	0	←
10. AFCW	0/1	0	←
11. VSW	0/1	0	←
12. FFI	0/1	0	←
13. AGC	00/01/10/11	01	←
14. CL	50 – 95	74	←
15. AKB	0/1	0	←
16. HBL	0/1	0	←
17. BKS	0/1	1	←
18. READ STATUS	–	–	–
19. VNR	00 – 63	15	←
20. PEAK	0 – 3	0	←
21. IVG	0/1	1	←
22. WPL	0 – F	5	←
23. SOFT CLIPPER	0 – 3	3	←
24. IF PLL OFFSET	0 – 63	32	←
25. OVERSHOOT	0 – 3	3	←
26. HCO	0/1	0	←
27. HP2	0/1	0	←
28. AI VOLUME ADN	00/01/10/11	10	←
29. SUB BASS	-6 – +6	+3	+1
30. SUB TREBLE	-6 – +6	-3	+1
31. SUB TRIMMER	0 – 6	0	←
32. CCCLOOP	0 – 4	1	←
33. OSD BRIGHTNESS	0 – 15	5	←

4.6.8 A2NICAM SETTING [AV-21V511/B, AV-21V531/B]

• Do not adjust **6. A2NICAM** in the SERVICE MENU as it requires no adjustment.

[SUB MENU 6. A2NICAM]

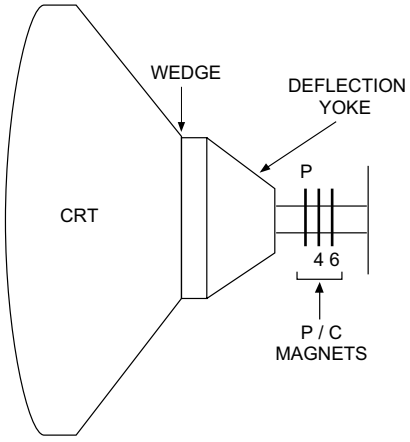
Setting item	Variable range	Initial setting value
1. ERROR LIMIT	000H – FF0H	100H
2. A2 ID THR	00H – FFH	0AH
3. SOUND SYSTEM	→ B/G → I → D/K → M	B/G (display only)

4.6.9 PURITY AND CONVERGENCE

■ PURITY ADJUSTMENT

Note:
The final adjustment of CONVERGENCE must be done after the FOCUS adjustment. (CONVERGENCE is changed by FOCUS adjustment.)
When makes difference by FOCUS adjustment, should be reconfirming PURITY adjustment.

(1) Demagnetize CRT with the demagnetizer.
(2) Loosen the retainer screw of the deflection yoke.
(3) Remove the wedges.
(4) Input a green raster signal from the signal generator, and turn the screen to green raster.
(5) Move the deflection yoke backward.
(6) Bring the long lug of the purity magnets on the short lug and position them horizontally. (Fig. 2)
(7) Adjust the gap between two lugs so that the GREEN RASTER will come into the centre of the screen. (Fig. 3)
(8) Move the deflection yoke forward, and fix the position of the deflection yoke so that the whole screen will become green.
(9) Insert the wedge to the top side of the deflection yoke so that it will not move.
(10) Input a crosshatch signal.
(11) Verify that the screen is horizontal.
(12) Input red and blue raster signals, and make sure that purity is properly adjusted.



• P/C MAGNETS

P : PURITY MAGNET
4 : 4 POLES (convergence magnets)
6 : 6 POLES (convergence magnets)

Fig. 1

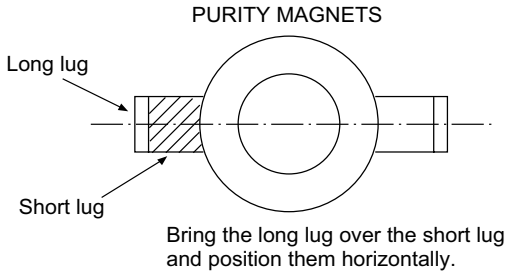


Fig. 2

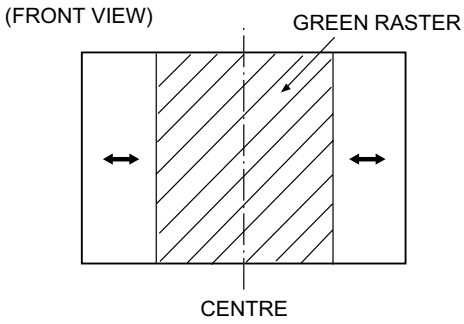


Fig. 3

■ STATIC CONVERGENCE ADJUSTMENT

(1) Input a crosshatch signal.
(2) Using 4-pole convergence magnets, overlap the red and blue lines in the centre of the screen (Fig. 4) and turn them to magenta (red/blue).
(3) Using 6-pole convergence magnets, overlap the magenta(red/blue) and green lines in the centre of the screen and turn them to white.
(4) Repeat (2) and (3) above, and make best convergence.

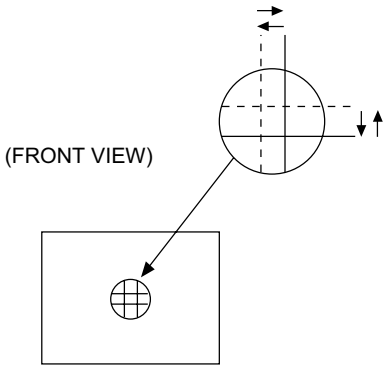


Fig. 4

■ DYNAMIC CONVERGENCE ADJUSTMENT

(1) Move the deflection yoke up and down and overlap the lines in the periphery. (Fig. 5)
(2) Move the deflection yoke left to right and overlap the lines in the periphery. (Fig. 6)
(3) Repeat (1) and (2) above, and make best convergence.
(4) Adjust XV by XV coil. (Fig.7)

NOTES:

- After adjustment, fix the wedge at the original position.
- Fasten the retainer screw of the deflection yoke.
- Fix the P/C magnets with glue.

(FRONT VIEW)

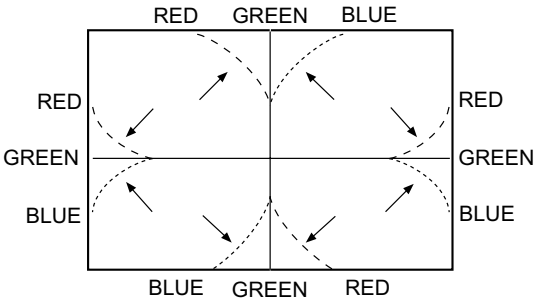


Fig. 5

(FRONT VIEW)

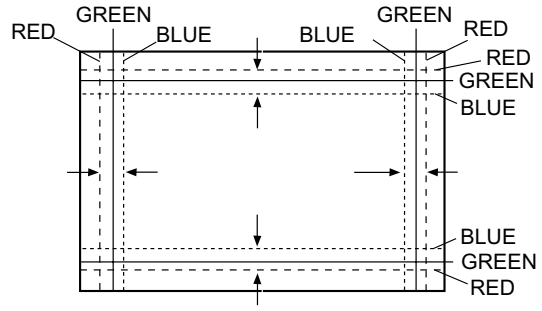


Fig. 6

(FRONT VIEW)

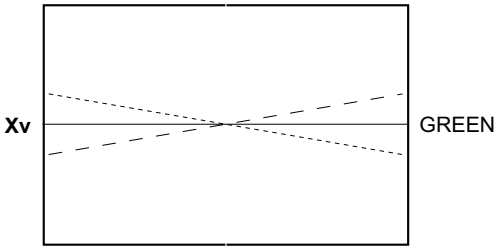


Fig. 7

SECTION 5
TROUBLESHOOTING

5.1 SELF CHECK FUNCTIONS

5.1.1 OUTLINE

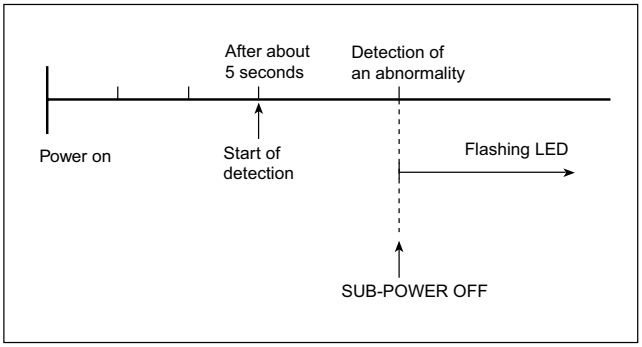
This model has self check functions given below. When an abnormality has been detected, the SUB POWER is turned off and POWER LED flash to inform of the failure. An abnormality is detected by the signal input state of the control line connected to the microcomputer.

5.1.2 SELF CHECK ITEMS

Check item	Details of detection	Method of detection	State of abnormality
B1 over-current protection	An over-current on the low B1 line is detected.	The main microcomputer detects the possible abnormality at 30-msec. intervals and judges the results in every 16 time. Of the 16 times, if NG is detected more than 9 times, it is judged that there is an abnormality.	When an abnormality has been detected, the SUB-POWER is turned off. While the SUB-POWER is being turned off, the POWER key on the remote control unit is not operational until the power cord is taken out and put in again.
CRT neck protection	Operation of CRT neck protection circuit	DITTO	DITTO

5.1.3 SELF CHECK INDICATING FUNCTION

When an abnormality has been detected at about 5 seconds after the power is turned on, the SUB POWER is turned off immediately and the LED flash.



[INDICATION BY THE POWER LED]

Item	LED flashing intervals	Priority of detection
[1] B1 over-current protection	At 0.2-second intervals	1
[2] CRT neck protection	At 1-second intervals	2

Note: In case of [1] + [2], the item [1] is indicated.

JVC

VICTOR COMPANY OF JAPAN, LIMITED
AV & MULTIMEDIA COMPANY VIDEO DISPLAY CATEGORY 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

(No. 52176)

Printed in Japan
WPC

JVC

COLOUR TELEVISION

INSTRUCTIONS

Thank you for buying this JVC colour television.
To make sure you understand how to use your new TV, please read this manual thoroughly before you begin.

AV-21V311
AV-21V511
AV-21V531
AV-29V311
AV-29V511
AV-29V531

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GGT0015-001A-H
0803-NIC-JMT

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Safety precautions

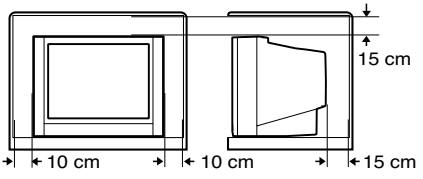
WARNING

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION

TO ENSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS TV.

- Operate only from the power source specified on the TV.
- Avoid damaging the power cord and main plug. When you unplug the TV, pull it out by the main plug. Do not pull on the power cord.
- Never block or cover the cabinet opening for ventilation. Never install the TV where good ventilation is unattainable. When installing this TV, leave spaces for ventilation around the TV more than the minimum distances shown in the diagram.



- Do not allow objects or liquid into the cabinet openings.
- In the event of a fault, unplug the TV and bring to JVC service centre. Do not attempt to repair it by yourself or remove the rear cover.
- The surface of the TV screen is easily damaged. Be very careful with it when handling the TV. Should the TV screen become soiled, wipe it with a soft dry cloth. Never rub it forcefully. Never use any cleaner or detergent on it.
- When you don't use this TV for a long period of time, be sure to disconnect the power plug from the AC outlet.
- The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

< AV-21V531/AV-29V531 >

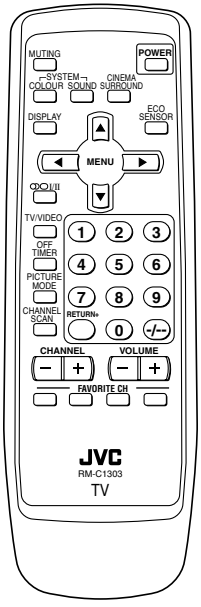
The Twin Port Bass Blaster Unit is packaged together with the TV.
Before you use the TV, mount the Twin Port Bass Blaster Unit correctly on the TV.

Preparation

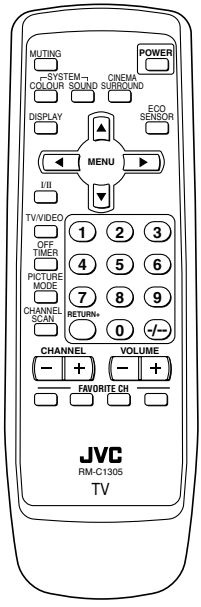
1 Confirm which remote control you have

Your TV comes with one of the three remote controls shown below. Functions you can operate differ depending on the type of remote control.

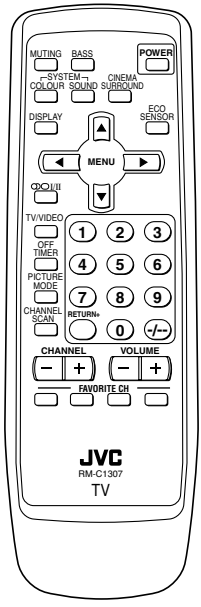
<RM-C1303>
For TV model:
AV-21V511
AV-29V511



<RM-C1305>
For TV model:
AV-21V311
AV-29V311

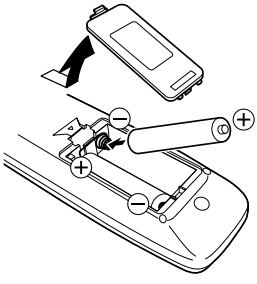


<RM-C1307>
For TV model:
AV-21V531
AV-29V531



2 Insert the batteries into the remote control

Correctly insert two batteries, observing the ⊕ and ⊖ polarities and inserting the ⊖ end first.



CAUTION:

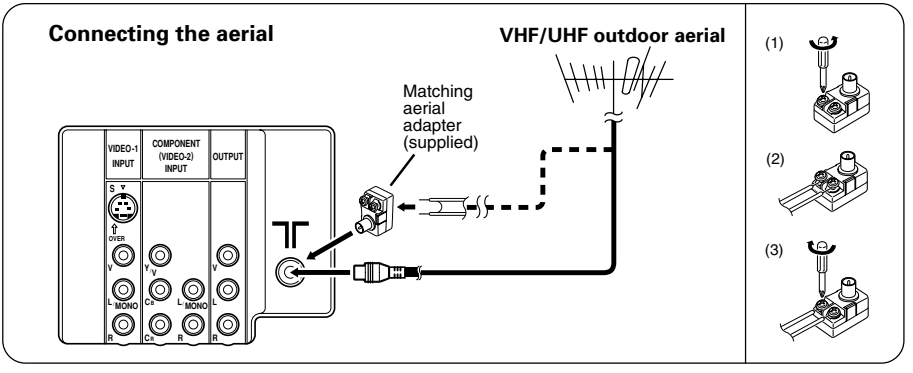
Follow the cautions printed on the batteries.

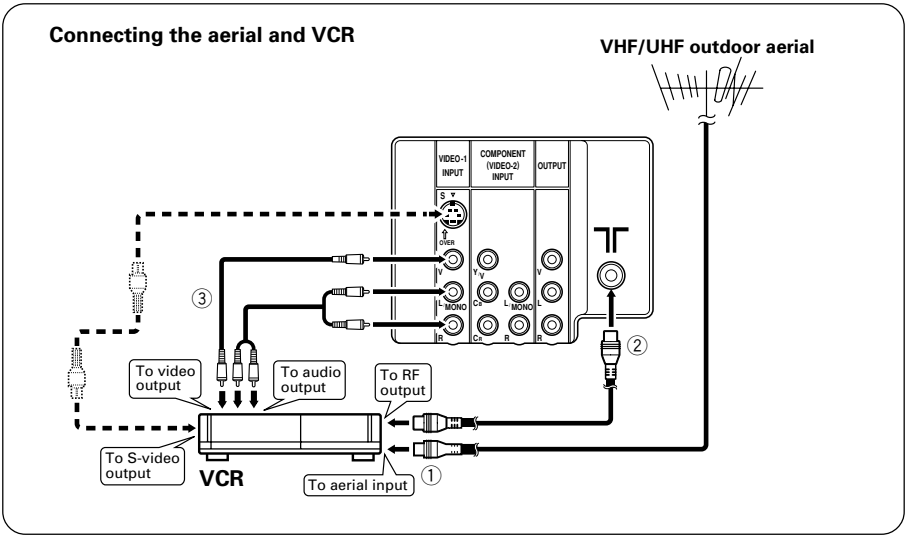
Notes:

- Use AA/R6/UM-3 dry cell batteries.
- If the remote control does not work properly, fit new batteries. The supplied batteries are for testing, not regular use.

3 Connecting the aerial and VCR

- Read the manuals provided with the devices. Depending on the device, the connection method may be different from the diagrams. Also the device settings may need to change depending on the connection method.
- Turn off all the devices including the TV.
- Connecting cables are not supplied.
- When connecting monaural audio to the TV, use the L/MONO jack.
- You can connect an S-VIDEO compatible device (such as an S-VHS VCR) to the S-connector with an S-VIDEO cable and enjoy the high quality picture of the S-VIDEO signal (Y/C signal). In that case, do not connect it to the TV with a video cable.
- If you connect the VCR to the TV only with an aerial cable, you should preset the video channel from the VCR to the AV channel (channel number 0) on this TV. See "MANUAL CH PRESET" on page 16 and preset it manually.

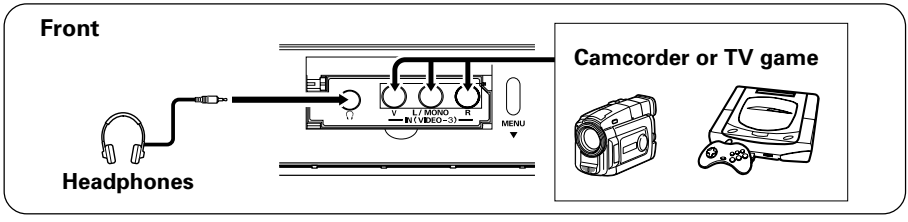


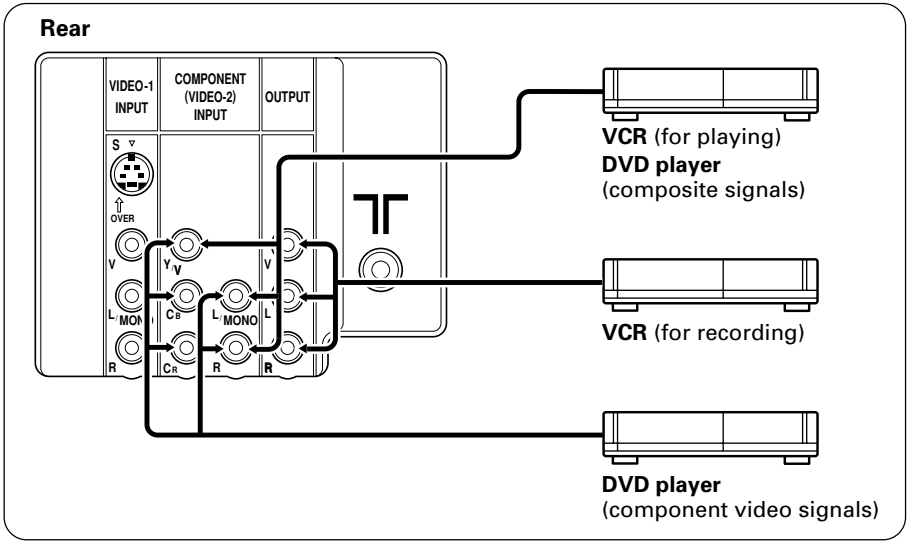


4 Connecting other devices

If you are not connecting any other devices, skip step 4 and perform step 5.

- Use the headphones with a stereo mini jack (3.5 mm in diameter). When you connect the headphones, the TV speakers go off.
- The OUTPUT terminal outputs the video and sound signals which you are viewing on the TV. You can dub them onto the VCR connected to the OUTPUT terminal.
  (The OUTPUT terminal cannot output S-VIDEO signals or component video signals. Also it cannot output any signals when the TV is turned off.)
- Connect components outputting a component signal (Y/C_B/C_R signal), such as a DVD player, to the VIDEO-2 terminal, and set VIDEO-2 SET function to "COMPONENT". (See page 15.)
- The following illustrations are for the AV-21V311/AV-21V511/AV-21V531. Your TV's front and rear panels may not look exactly like the illustrations.





5 Connect the power cord to the AC outlet

Operate only from the power source indicated on the rear of the TV.

6 SETUP TOUR

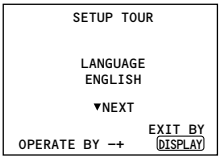
When the TV is first turned on, it enters the SETUP TOUR mode, and the JVC logo is displayed. Follow the instructions on the on-screen display to perform the SETUP TOUR.

- In case of resetting that the reason for such as removal, you can set the AUTO CH PRESET function on the "MENU 3" menu. For details, see page 15.

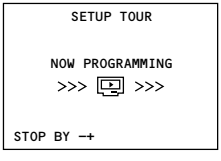
1 Press the Main power button on the TV.

The POWER lamp lights. After the JVC logo has been displayed, the TV automatically switches to the language setting mode.

2 Press the CHANNEL –/+ or the MENU ◀/▶ buttons to select the on-screen language.

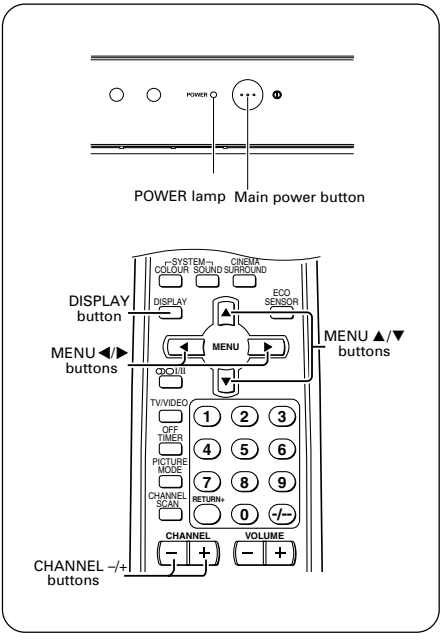


3 The AUTO PROGRAMMING function will start and the indicator blinks.



- To stop the AUTO PROGRAMMING function, press the CHANNEL –/+ or the MENU ◀/▶ buttons.

When all the TV channels that can be received on your TV have been preset, the display goes out and the AUTO PROGRAMMING function operation is completed.

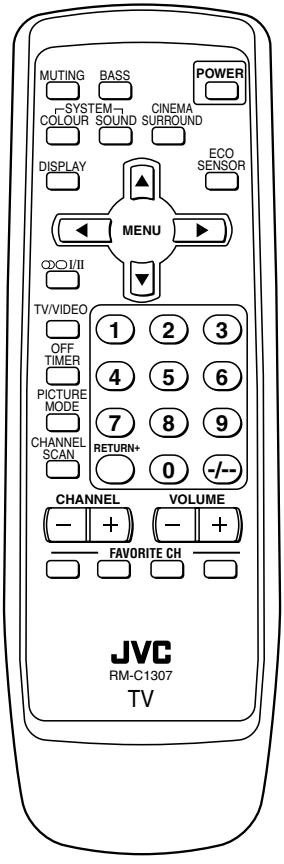


- If a TV channel you want to view is not set to the channel, set it with the MANUAL CH PRESET function. For details, see page 16.

4 Upon the completion of AUTO PROGRAMMING function, the message below is displayed.

Basic operation

The illustration below is for the remote control unit RM-C1307. Your remote control may not look exactly like the illustration.



1 Press the POWER button to turn your TV on.

- If your TV does not turn on, press the Main power button on the TV, then press the POWER button again.
- You can also turn on your TV by pressing any of the following buttons;
  - the CHANNEL –/+ button
  - the Number buttons
  - the TV/VIDEO button

2 Select a channel.

■ Press the CHANNEL –/+ button.

- Up/down selection cannot be selected for channels to which the SKIP has been set to "YES". See page 17.

■ Press the Number buttons to enter the channel number.

- If you want to enter a two-digit number, press the -/-- button to select the two digit mode "--", then enter the channel number.

3 Press the VOLUME –/+ button to adjust the sound.

4 To turn your TV off, press the POWER button.

- We recommend that you press the Main power button on the TV to turn the main power off if you do not plan to use your TV for a long time or if you wish to save energy.

If the picture is not clear:

Press the COLOUR SYSTEM button to select another colour system, see page 8.

If the sound is not clear:

Press the SOUND SYSTEM button to select another sound system, see page 8.

Viewing Images from an External Device:

Press the TV/VIDEO button to select the VIDEO mode.

- You can also use the INPUT function to select the VIDEO mode. For details, refer to page 13.

Remote control buttons and functions

MUTING button

You can turn the sound off instantly.

Press this button.

To turn the sound on, press this button again.

BASS button

< AV-21V531/AV-29V531 only >

You can enjoy a powerful bass sound by using the BASS (Bass Reflex) function.

Press this button to turn the BASS function on or off.

- To use this function, you must first mount the Twin Port Bass Blaster Unit packaged with the TV on top of the TV. For details, see page 20.

SOUND SYSTEM button

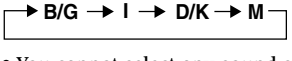
If the sound is not clear even when the picture appears normal, change the current sound system to another sound system.

Press this button to select the sound system.

< AV-21V311/AV-29V311 only >

B/G

< Other models >



- You cannot select any sound system when in a VIDEO mode.

COLOUR SYSTEM button

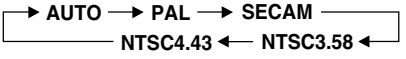
If the picture is not clear or no colour appears, change the current colour system to another colour system.

Press this button to select the colour system.

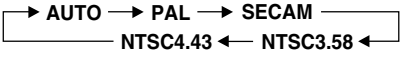
In TV mode:

< AV-21V311/AV-29V311 only >

< Other models >



In VIDEO mode:



AUTO:

Automatic colour system selection.

- If the picture is not normal in the AUTO mode, change the AUTO mode to another colour system.

DISPLAY button

You can continuously display the current channel number or VIDEO mode on the screen.

Press this button.

To turn the display off, press this button again.

- When selecting a VIDEO mode with no signal, indication of the VIDEO mode becomes fixed on the screen.

CINEMA SURROUND button

You can enjoy an enhanced sound for a wider audience by using CINEMA SURROUND function.

Press this button to select one of the CINEMA SURROUND mode.

HIGH/LOW:

When you listen to the stereo sound, please select HIGH mode or LOW mode. You can enjoy the sound for a wider audience similar to the experience at the theatre.

- In case that you setting up the CINEMA SURROUND function to HIGH mode, there may be slight volume distortion. In case that occurs, please switch the HIGH mode to LOW mode, the effect of CINEMA SURROUND functions will be less noticeable, however, the volume distortion will be corrected.

MONO SURROUND:

Select the MONO SURROUND mode, when you listen to the mono sound. You can enjoy the sound for a wider audience similar to stereo sound.

OFF:

The CINEMA SURROUND function swiches off.

ECO SENSOR button

You can adjust this TV so that the screen automatically adjusts to the optimum contrast according to the brightness of your room. This function reduces eye strain and the power consumption of this TV.

Press this button to select the desired mode.

AI ECO SENSOR 1:

The AI ECO SENSOR function switches on.

Usually, it is recommended to watch the TV in this mode.

AI ECO SENSOR 2:

The AI ECO SENSOR function switches on.

If you feel the screen in the “AI ECO SENSOR 1” mode is too dark, select this mode.

AI ECO SENSOR OFF:

The AI ECO SENSOR function switches off.

- You can display on the screen the effect of the AI ECO SENSOR function.
  For details, see “AI ECO DISPLAY” on page 19.

⦶⦶I/Ⅱ button

< AV-21V511/AV-21V531/AV-29V511/ AV-29V531 only >

You can select a sound setting for stereo broadcast programmes and bilingual programmes.

Press this button to select a sound setting.

⦶⦶ : Stereo sound
Ⅰ : Bilingual I (sub I) sound
Ⅱ : Bilingual II (sub II) sound
⦶ : Monaural sound
MONO : Cancels the multi-sound function, and the sound becomes monaural.

- If you have poor reception of a stereo broadcast, you can change from stereo sound (⦶⦶) to monaural sound (⦶) so that you can hear the broadcast more clearly and easily.
- If the multi-sound function cannot work normally due to poor signal quality, noise may be included in the sound, or the sound may change many times. If this happens, change the sound setting to MONO mode to cancel the multi-sound function.

PICTURE MODE button

You can select one of three picture adjustment settings as you like.

Press this button to select a mode.

BRIGHT:

Heightens contrast and sharpness.

STANDARD:

Standardizes picture adjustments.

SOFT:

Softens contrast and sharpness.

- Pressing this button returns all the picture settings in "MENU 4" to their default settings.

Ⅰ/Ⅱ button

< AV-21V311/AV-29V311 only >

You can select one of the two bilingual sounds in an A2 Sound-multiplex programme's bilingual programme.

Press this button to select a bilingual sound.

Ⅰ : Bilingual I sound
Ⅱ : Bilingual II sound

- The A2 Bilingual function has no effect on stereo programmes of the A2 Sound-multiplex broadcast programme type, although an A2 Bilingual function indicator will appear on the screen.
- The A2 Bilingual function has no effect on programmes other than A2 Sound-multiplex broadcast programme type, although an A2 Bilingual function indicator will appear on the screen.
- The A2 Bilingual function has no effect in VIDEO mode, although an A2 Bilingual function indicator will appear on the screen.

OFF TIMER button

You can set the TV to automatically turn off after a set time.

Press this button to select the period of time.

- You can set the period of time to a maximum of 120 minutes in 10 miniute increments.
- 1 minute before the OFF TIMER function turns off the TV, "GOOD NIGHT!" appears.

To display the remaining time, press this button once.

To cancel the OFF TIMER function, press this button to set the period of time to "0".

- The OFF TIMER function will not turn off the TV's main power.

CHANNEL SCAN button

You can quickly view all TV channels programmes that you can view on your TV, and search for the programme you want to view.

1 Press this button to start scanning TV channels.

The TV channel programmes are each displayed for several seconds.

- The programmes of TV channels for which the SKIP function is set to "YES" are not displayed.

2 When you find the programme you want to view, press this button again to stop scanning.

FAVORITE CH button

You can correlate 4 channels out of 99 channels (PR01-PR99) with FAVORITE CH buttons RED, GREEN, YELLOW and BLUE.

When not in TEXT mode, press one of the FAVORITE CH buttons for more than 3 seconds to correlate currently watching channel. After the channel and button are correlated, you can directly select favorite channel by the correlated button.

- When MENU is displayed, FAVORITE CH cannot be correlated.
- Correlation of FAVORITE CH button and the channel cannot be reset eventhough the main power is turned off.

RETURN + button

You can set a channel you frequently view to the Return Channel and you can view that channel at any time with one-touch.

To set the channel to the Return Channel:

1 Select the channel you want to set to the Return Channel.

2 Press this button and hold until the message "RETURN PLUS PROGRAMMED!" appears.

- When you turn off the TV, the Return Channel setting is canceled.

To view the Return Channel:

Press this button.

- You can view two channels (current channel and Return Channel) alternately by pressing this button.

To cancel the Return Channel setting:

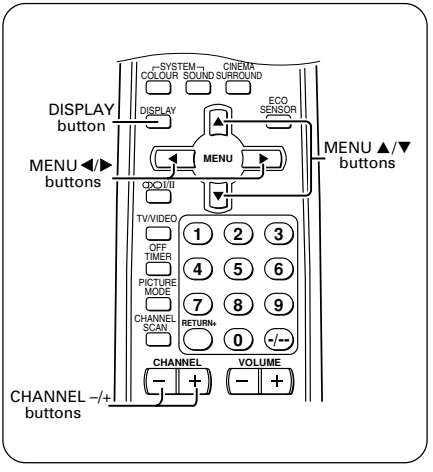
Press this button and hold until the message "RETURN PLUS CANCELED!" appears.

If no channel is set to the Return Channel:

You can view the channel selected right before the current channel by pressing this button.

Using the TV's menus

This TV has a number of functions you can operate using the menus. To use all your TV's functions fully, you need to understand how to use the menus.



■ Basic operation

1 Press the MENU ▲/▼ buttons.
One of the 6 menus is displayed.

MENU number

The icon ☞ on the left indicates the currently selected function.

```
MENU          1
☞INPUT        TV
 VNR          ON
 COMPRESS(16:9) ON
 PICTURE TILT  00

SELECT  BY ▼▲  EXIT BY
OPERATE BY –+  DISPLAY
```

2 Repeatedly press the MENU ▲/▼ buttons to display a desired menu.

- If you hold down the ▼ button, the next menu is displayed.
- If the selected function is on the first line, pressing the ▲ button displays the preceding menu.

3 Repeatedly press the MENU ▲/▼ buttons to select a desired function.

4 Press the CHANNEL –/+ or the MENU ◀/▶ buttons to change function settings.

Example:

Changes the AUTO SHUTOFF setting.

```
MENU          2
☞AUTO SHUTOFF OFF
 CHILD LOCK   OFF
 BLUE BACK    ON
 VIDEO-2 SET  COMPONENT

SELECT  BY ▼▲  EXIT BY
OPERATE BY –+  DISPLAY
```

⇔

```
MENU          2
☞AUTO SHUTOFF ON
 CHILD LOCK   OFF
 BLUE BACK    ON
 VIDEO-2 SET  COMPONENT

SELECT  BY ▼▲  EXIT BY
OPERATE BY –+  DISPLAY
```

- With some functions, the operation method may differ.

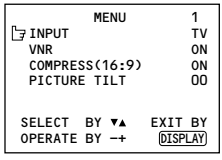
5 Press the DISPLAY button to turn the display off.

- To operate a menu using the buttons on the front panel of the TV, refer to "Operating menus" on page 22.

INPUT

You can view images from VCRs or other devices connected to your TV.

1 Press MENU ▲/▼ to display the "MENU 1" menu, then select "INPUT".



2 Press CHANNEL –/+ or MENU ◀/▶ to select "VIDEO-1", "VIDEO-2" or "VIDEO-3".

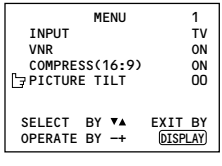
TV mode changes to VIDEO mode.

PICTURE TILT

< AV-29V311/AV-29V511/AV-29V531 only >

There are cases where the Earth's magnetic force may make the picture tilt. If this happens, you can correct the picture tilt.

1 Press MENU ▲/▼ to display the "MENU 1" menu, then select "PICTURE TILT".

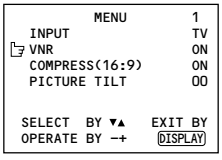


2 Continue pressing CHANNEL –/+ or MENU ◀/▶ until the picture becomes level.

VNR

You can reduce picture noise.

1 Press MENU ▲/▼ to display the "MENU 1" menu, then select "VNR".



2 Press CHANNEL –/+ or MENU ◀/▶ to select "ON".

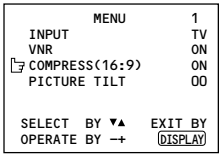
To cancel the VNR function, select "OFF".

COMPRESS (16:9)

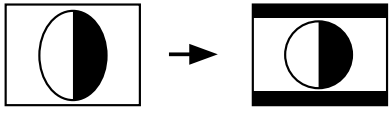
This function converts a normal picture (4:3 aspect ratio) into a wide picture (16:9 aspect ratio).

Use for pictures with a 16:9 aspect ratio that have been squeezed into a normal picture (4:3 aspect ratio), to restore their original dimensions.

1 Press MENU ▲/▼ to display the "MENU 1" menu, then select "COMPRESS (16:9)".



2 Press CHANNEL –/+ or MENU ◀/▶ to select "ON".

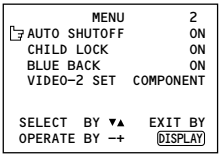


To cancel the COMPRESS (16:9) function, select "OFF".

AUTO SHUTOFF

You can set your TV to turn off if no signals are received for about 15 minutes or longer after the end of a broadcast.

1 Press MENU ▲/▼ to display the "MENU 2" menu, then select "AUTO SHUTOFF".



2 Press CHANNEL –/+ or MENU ◀/▶ to select "ON".

To cancel the AUTO SHUTOFF function, select "OFF".

- The AUTO SHUTOFF function does not turn off the TV's main power.
- The AUTO SHUTOFF will not work for a VIDEO mode.

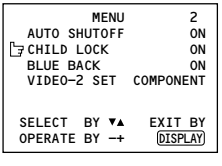
CHILD LOCK

You can disable the front control buttons of the TV.

When this function is set to "ON", the TV can be operated using only the remote control.

Use this function to prevent children from operating the TV without parental consent.

1 Press MENU ▲/▼ to display the "MENU 2" menu, then select "CHILD LOCK".



2 Press CHANNEL –/+ or MENU ◀/▶ to select "ON".

To cancel the CHILD LOCK function, select "OFF".

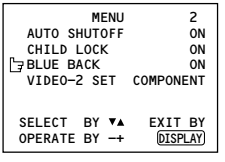
- The CHILD LOCK function is canceled when you turn the power off.

BLUE BACK

If no signal is being received or the signal is very weak, a blue screen automatically becomes the picture background.

If you wish to continue viewing the poor picture, you must set the BLUE BACK function to "OFF".

1 Press MENU ▲/▼ to display the "MENU 2" menu, then select "BLUE BACK".



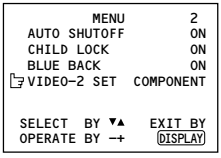
2 Press CHANNEL –/+ or MENU ◀/▶ to select "ON".

To cancel the BLUE BACK function, select "OFF".

VIDEO-2 SET

Set the VIDEO-2 SET correctly according to the video signal input from the external device connected to the VIDEO-2 terminal. If this setting is incorrect, images will not be displayed.

1 Press MENU ▲/▼ to display the "MENU 2" menu, then select "VIDEO-2 SET".



2 Set the VIDEO-2 SET according to the video signal input from the VIDEO-2 terminal.

If a normal video signal (composite video signal) is input:

Press the CHANNEL –/+ or the MENU ◀/▶ buttons to select "VIDEO".

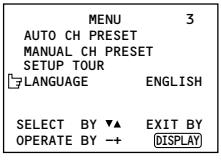
If a component video signal ($Y/C_B/C_R$ signals) is input:

Press the CHANNEL –/+ or the MENU ◀/▶ buttons to select "COMPONENT".

LANGUAGE

You can select the language for the on-screen display.

1 Press MENU ▲/▼ to display the "MENU 3" menu, then select "LANGUAGE".



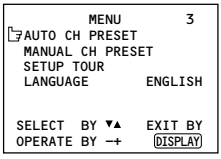
2 Press CHANNEL –/+ or MENU ◀/▶ to select language.

The on-screen display indications are in the selected language.

AUTO CH PRESET

You can automatically preset all TV channels that can be received by your TV to channels.

1 Press MENU ▲/▼ to display the "MENU 3" menu, then select "AUTO CH PRESET".



2 Press CHANNEL –/+ or MENU ◀/▶ to start the AUTO CH PRESET function.

" >>> ON SEARCH" is displayed on the screen.

When all the TV channels that can be received on your TV have been preset, the display goes out and the AUTO CH PRESET function operation is completed.

To stop the AUTO CH PRESET:

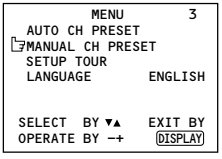
Press the CHANNEL –/+ or the MENU ◀/▶ buttons.

- The AUTO CH PRESET function does not preset a TV channel to the AV channel (channel number 0).
- If the TV cannot preset the TV channel you want to view, preset it manually. For details, see "MANUAL CH PRESET" on page 16.

MANUAL CH PRESET

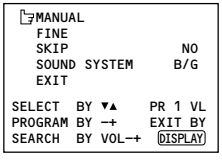
You can manually preset desired TV channels to desired channels.

1 Press MENU ▲/▼ to display the "MENU 3" menu, then select "MANUAL CH PRESET".



2 Press CHANNEL –/+ or MENU ◀/▶.

The sub-menu is displayed.



- The channel number is displayed as a PR number. For example, channel 1 will be displayed as PR 1. However, the AV channel will be displayed as AV.

3 Press CHANNEL –/+ or MENU ◀/▶ to select the channel number.

4 Press VOLUME –/+ to start searching for the TV channel.

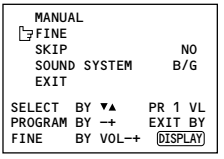
"> > >" or "< < <" is displayed on the screen.

When the TV finds a TV channel, the "> > >" or "< < <" display goes out, and the TV channel is preset to the currently selected channel number.

- If the TV channel you want to preset is not displayed, repeat step 4 until the TV finds the TV channel you want to preset.
- To stop the MANUAL CH PRESET function, press any button other than the VOLUME –/+ button.

If the picture is not clear:
Fine-tune the TV channel.

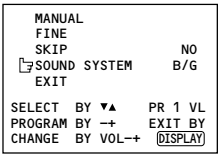
1 Press MENU ▲/▼ to select "FINE".



2 Hold VOLUME –/+ down to fine-tune the TV channel so that the best image is displayed on screen.
"> " or "< " indicates that the TV is fine-tuning the TV channel.

If the sound is not clear:

1 Press MENU ▲/▼ to select "SOUND SYSTEM".



2 Press VOLUME –/+ to select the appropriate sound system.

5 Press MENU ▲/▼ to select "MANUAL".

6 Repeat steps 3 to 5 if you want to preset another TV channel to a channel.

SKIP

You can set undesired channels to be skipped. Channels set to be skipped cannot be selected by the CHANNEL –/+ buttons or the CHANNEL SCAN button.

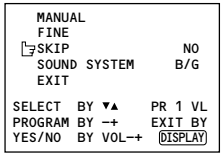
- Channels to which TV channels have not been preset are automatically set to be skipped.

1 Press MENU ▲/▼ to display the "MENU 3" menu, then select "MANUAL CH PRESET".

2 Press CHANNEL –/+ or MENU ◀/▶.

The sub-menu is displayed.

3 Press MENU ▲/▼ to select "SKIP".



4 Press CHANNEL –/+ or MENU ◀/▶ to select the channel you want to skip.

5 Press VOLUME –/+ to select "YES".

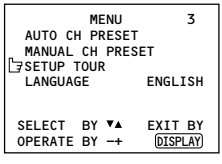
The channel is set to be skipped.
To cancel the SKIP function, select "NO".

6 Repeat steps 4 and 5 if you want to set another channel to skip.

SETUP TOUR

You can start the SETUP TOUR function.

1 Press MENU ▲/▼ to display the "MENU 3" menu, then select "SETUP TOUR".



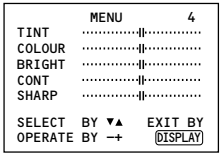
2 Press CHANNEL –/+ or MENU ◀/▶.

JVC logo appears and the SETUP TOUR functon will start.
For details, see page 6.

Picture Adjustments

You can adjust the picture as you like.

1 Press MENU ▲/▼ to display the "MENU 4" menu.



2 Press MENU ◀/▶ to select an item and press CHANNEL –/+ or MENU ◀/▶ to adjust it.

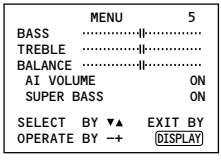
TINT*	– : Reddish	+ : Greenish
COLOUR	– : Lighter	+ : Deeper
BRIGHT	– : Darker	+ : Brighter
CONT	– : Lower	+ : Higher
SHARP	– : Softer	+ : Sharper

* TINT (tint) is displayed only when viewing images from NTSC3.58 or NTSC4.43 colour systems.

Sound Adjustments

You can adjust the sound as you like.

1 Press MENU ▲/▼ to display the "MENU 5" menu.



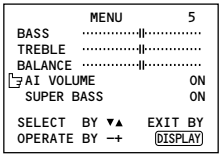
2 Press MENU ◀/▶ to select an item and press CHANNEL –/+ or MENU ◀/▶ to adjust it.

BASS	– : Weaker	+ : Stronger
TREBLE	– : Weaker	+ : Stronger
BALANCE	– : Left	+ : Right

AI VOLUME

You can prevent the sudden increase or decrease of volume that occurs when changing channels or switching VIDEO modes.

1 Press MENU ▲/▼ to display the "MENU 5" menu, then select "AI VOLUME".



2 Press CHANNEL –/+ or MENU ◀/▶ to select "ON".

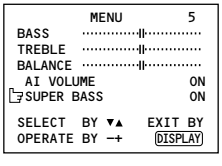
To cancel the AI VOLUME function, select "OFF".

- The AI VOLUME function may not operate as expected if the sound input level from a broadcast station (or video software) is extremely low.
- The AI VOLUME function for TV mode and VIDEO mode can be set separately. For example, you can set it to be off in TV mode and on in VIDEO mode. If you set the AI VOLUME function while viewing a TV channel, the setting is registered as the setting for TV mode. If you set the AI VOLUME function while viewing images from a VIDEO terminal, the setting is registered as the setting for VIDEO mode.

SUPER BASS

You can enjoy a powerful bass sound by using the SUPER BASS (Bass Reflex) function.

1 Press MENU ▲/▼ to display the "MENU 5" menu, then select "SUPER BASS".



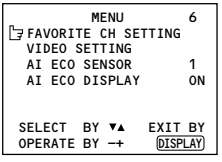
2 Press CHANNEL –/+ or MENU ◀/▶ to select "ON".

To cancel the SUPER BASS function, select "OFF".

FAVORITE CH SETTING

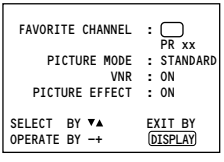
You can set PICTURE MODE, VNR and PICTURE EFFECT functions for the favorite channels using FAVORITE CH SETTING menu.

1 Press MENU ▲/▼ to display the "MENU 6" menu, then select "FAVORITE CH SETTING".



2 Press CHANNEL –/+ or MENU ◀/▶.

The sub-menu is displayed.



3 Press CHANNEL –/+ or MENU ◀/▶ to select one of the colours of "RED", "GREEN", "YELLOW" or "BLUE" assigned to FAVORITE CH button.

4 Press MENU ▲/▼ to select "PICTURE MODE", then press CHANNEL –/+ or MENU ◀/▶ to select the picture mode of "BRIGHT", "STANDARD" or "SOFT".

5 Press MENU ▲/▼ to select "VNR", then press CHANNEL –/+ or MENU ◀/▶ to select VNR "ON" or "OFF".

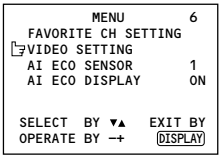
6 Press MENU ▲/▼ to select "PICTURE EFFECT", then press CHANNEL –/+ or MENU ◀/▶ to select PICTURE EFFECT "ON" or "OFF".

- PICTURE MODE and VNR settings are changed only when you press the FAVORITE CH button while PICTURE EFFECT is ON. Otherwise, PICTURE MODE and VNR are not changed.

VIDEO SETTING

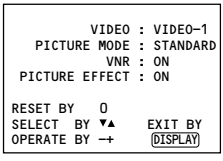
You can set PICTURE MODE, VNR and PICTURE EFFECT functions for VIDEO mode using VIDEO SETTING menu.

1 Press MENU ▲/▼ to display the "MENU 6" menu, then select "VIDEO SETTING".



2 Press CHANNEL –/+ or MENU ◀/▶.

The sub-menu is displayed.



3 Press CHANNEL –/+ or MENU ◀/▶ to select "VIDEO-1", "VIDEO-2" or "VIDEO-3".

4 Press MENU ▲/▼ to select "PICTURE MODE", then press CHANNEL –/+ or MENU ◀/▶ to select the picture mode of "BRIGHT", "STANDARD" or "SOFT".

5 Press MENU ▲/▼ to select "VNR", then press CHANNEL –/+ or MENU ◀/▶ to select VNR "ON" or "OFF".

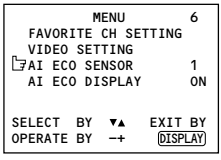
6 Press MENU ▲/▼ to select "PICTURE EFFECT", then press CHANNEL –/+ or MENU ◀/▶ to select PICTURE EFFECT "ON" or "OFF".

- PICTURE MODE and VNR settings are changed only when VIDEO input mode is selected while PICTURE EFFECT is ON. Otherwise, PICTURE MODE and VNR are not changed.
- Press 0 button to reset the setting.

AI ECO SENSOR

You can enable this function so that the brightness of TV screen is automatically adjusted according to the brightness of your room.

1 Press MENU ▲/▼ to display the "MENU 6" menu, then select "AI ECO SENSOR".



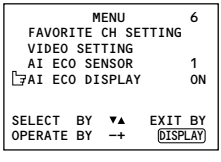
2 Press CHANNEL –/+ or MENU ◀/▶ to select "OFF", "1" or "2".

- For detailed description, see the "ECO SENSOR button" on page 9.

AI ECO DISPLAY

You can display on the screen the effect of the AI ECO SENSOR function.

1 Press MENU ▲/▼ to display the "MENU 6" menu, then select "AI ECO DISPLAY".



2 Press CHANNEL –/+ or MENU ◀/▶ to select "ON".

The clover mark indicating the brightness of your room is displayed for several seconds each time the brightness changes. The number of clover marks displayed on screen increases as your room becomes darker.

To cancel the AI ECO DISPLAY function, select "OFF".

Attaching the Twin Port Bass Blaster Unit

< AV-21V531/AV-29V531 only >

The Twin Port Bass Blaster Unit is packaged together with the TV. Before you use the TV, mount the Twin Port Bass Blaster unit correctly on the TV.

Note:

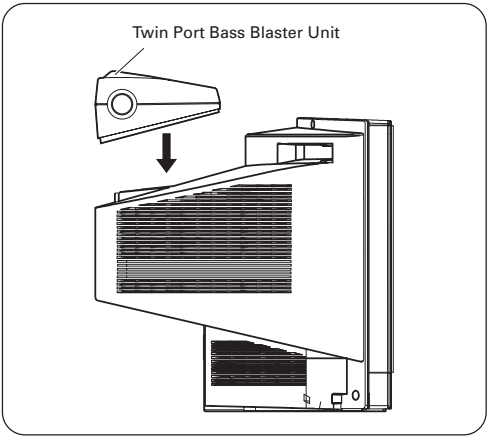
- The BASS functions do not work unless the Twin Port Bass Blaster Unit is connected correctly to the TV. For details on the BASS functions, see page 8.

CAUTION:

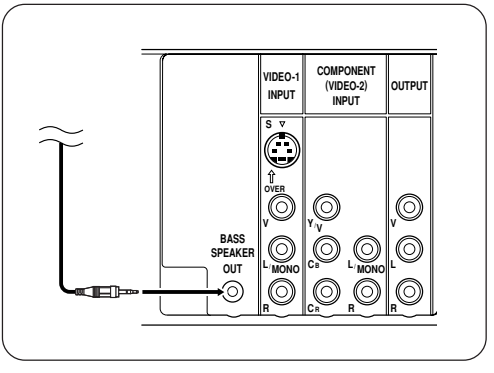
- The Twin Port Bass Blaster Unit is just placed on top of the TV and is not held in place by a screw. When using the unit, pay attention to the following cautions. Otherwise, the unit or TV may fall over and be damaged, or cause unexpected injury.
  - Do not rest your hands or elbows on the Twin Port Bass Blaster Unit.
  - Do not move the TV with the Twin Port Bass Blaster Unit mounted on top of the TV. Before you move the TV, be sure to remove the unit.
  - Do not move the TV by holding the Twin Port Bass Blaster Unit.

1 Place the unit on top of the TV making sure that the mounting pin on the bottom of the unit fits into the mounting hole on the top of the TV.

- When you mount the unit, make sure that the mounting pin fits properly into the mounting hole. Otherwise, it may slide off the top of the TV. This may cause damage or cause unexpected injury.

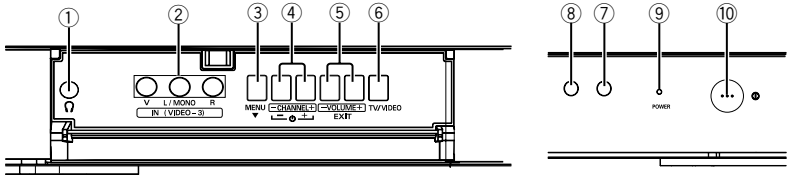


2 Firmly insert the Twin Port Bass Blaster Unit connector into the BASS SPEAKER OUT terminal.

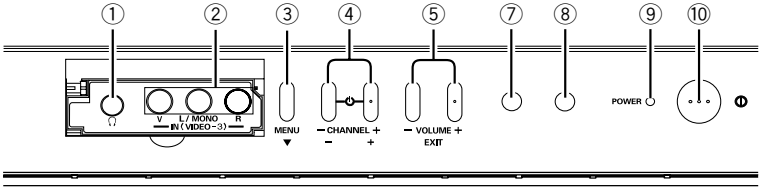


TV buttons and parts

< AV-29V311/AV-29V511/AV-29V531 >



< AV-21V311/AV-21V511/AV-21V531 >



① Headphone jack
② VIDEO-3 terminal
③ MENU button
④ CHANNEL –/+ buttons
⑤ VOLUME –/+ buttons
⑥ TV/VIDEO button
⑦ ECO sensor
⑧ Remote control sensor
⑨ POWER lamp
⑩ Main power button

Using the buttons on the TV

Basic operation

Check to make sure the CHILD LOCK function is set to “OFF”. When the CHILD LOCK function is set to “ON”, the TV cannot be operated using the front control buttons. For details, see “CHILD LOCK” on page 14.

1 Press CHANNEL –/+ to turn the TV on from standby mode.

2 Press CHANNEL –/+ to select a channel.

3 Press VOLUME –/+ to adjust the volume.

4 To turn your TV off, press the Main power button to turn off the TV’s main power.

To change the TV mode to the VIDEO mode:

- Press the TV/VIDEO button if the TV has one. See page 7.
- If the TV has no TV/VIDEO button, select the VIDEO mode with the INPUT function in “MENU 1”.

Operating menus

You can operate function in menus using the front control buttons on the TV.

1 Press MENU ▼ to display a menu.

2 Press MENU ▼ repeatedly to display the menu you want to use.

3 Press MENU ▼ to select the desired function or item.

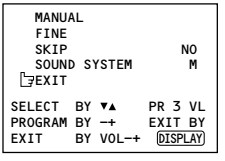
4 Press CHANNEL –/+ or VOLUME –/+ to carry out the desired operation.

For details, see the description for each function.

5 Press VOLUME –/+ to turn the menu display off.

To turn the sub-menu display off:

1 Press MENU ▼ to select “EXIT”.



2 Press VOLUME –/+ to turn the display off.

Troubleshooting

If there is no picture or the TV does not operate normally, make sure the problem isn't due to the reasons indicated below.

If the problem persists even after taking the measures indicated, please contact a service technician.

Cannot turn the TV on

- Press the Main power button on the TV.
- Connect the power cord to the AC outlet.

The screen turns blue

- Is the BLUE BACK function on? (see page 14.)

Remote control inoperable

- Replace the batteries. (see page 3.)

Buttons on front of the TV do not work

- Switch the CHILD LOCK function off. (see page 14.)

TV does not respond immediately

- Press the main power button on the TV to turn off the main power. Press the main power button again to turn on the TV. If the TV returns to a normal state, operation is normal.

The TV turns off suddenly

- Is the OFF TIMER function set to operate? (see page 10.)
- Is the AUTO SHUTOFF function on? (see page 14.)

Poor sound

- Press the SOUND SYSTEM button to select another sound system. (see page 8.)
- Adjust the sound settings. (see page 17.)
- If there is noise during mono sound output, press the **I/II** button to select "MONO". (see page 10.)

Poor picture

- Press the COLOUR SYSTEM button to select another colour system. (see page 8.)
- Adjust the picture settings. (see page 17.)
- Is a component signal output device, such as a DVD player, connected correctly? (see page 5.)
- Is the VIDEO-2 SET function setting correct? (see page 15.)
- If noise (snow) totally blocks out the picture, check the following.
  - Have the TV and aerial been connected properly?
  - Has the aerial cable been damaged?
  - Is the aerial pointing in the right direction?
  - Is the aerial itself faulty?
- If the TV or aerial suffer interference from other equipment, stripes or noise may appear in the picture. Move any equipment which can cause interference away from the TV.
- If the TV or aerial suffer interference from signals reflecting from mountains or buildings, double-pictures (ghosting) will occur. Change the aerial's direction or replace it with an aerial with better directionality.
- When a white and bright still image (such as a white dress) is displayed on the screen, the white part may look as if it is coloured. When the image disappears from the screen, the unnatural colours will also disappear.

The picture is tilted

< AV-29V311/AV-29V511/AV-29V531 only >

- A picture may be tilted due to the influence of the earth's magnetism. In this case, use the PICTURE TILT function to adjust the tilt. (see page 13.)

Specifications

Model	AV-21V311	AV-21V511	AV-21V531	AV-29V311	AV-29V511	AV-29V531
TV RF systems	B, G	B, G, I, D, K, M		B, G	B, G, I, D, K, M	
Colour systems	PAL, SECAM	PAL, SECAM, NTSC 3.58 MHz, NTSC 4.43 MHz		PAL, SECAM	PAL, SECAM, NTSC 3.58 MHz, NTSC 4.43 MHz	
Channel and frequencies	VHF low channel (VL) = 46.25 to 168.25 MHz VHF high channel (VH) = 175.25 to 463.25 MHz UHF channel (U) = 471.25 to 863.25 MHz • Receives cable channels in mid band (X to Z, S1 to S10), super band (S11 to S20) and hyper band (S21 to S41).					
Power input	AC 110 to 240 V, 50/60 Hz (operating AC 90 to 260 V, 50/60 Hz)					
Power consumption	MAX 126 W AVG 81 W	MAX 126 W AVG 81 W	MAX 150W AVG 93 W	MAX 190 W AVG 145 W	MAX 190W AVG 145 W	MAX 212 W AVG 145 W
Screen size (measured diagonally)	Picture tube 549 mm Visible area 508 mm	Picture tube 549 mm Visible area 508 mm	Picture tube 549 mm Visible area 508 mm	Picture tube 728 mm Visible area 676 mm	Picture tube 728 mm Visible area 676 mm	Picture tube 728 mm Visible area 676 mm
Audio output (Rated power output)	7W + 7W	7W + 7W	7W + 7W +13W	10W + 10W	10W + 10W	7W + 7W +13W
Speakers	(6.5 cm x 13 cm) x 2	(6.5 cm x 13 cm) x 2	(6.5 cm x 13 cm) x 2 13 cm round x 1	(6.5 cm x 13 cm) x 2	(6.5 cm x 13 cm) x 2	(6.5 cm x 13 cm) x 2 13 cm round x 1
External input/ output	VIDEO-1: S-VIDEO input, VIDEO input, AUDIO L/R input VIDEO-2/COMPONENT: VIDEO input, AUDIO L/R input, COMPONENT VIDEO (Y/C_B/C_R) input VIDEO-3: VIDEO input, AUDIO L/R input OUTPUT: VIDEO output, AUDIO L/R output Headphone jack: stereo mini jack (3.5 mm diameter)					
Dimension (WxHxD) (mm)	649 x 465.5 x 473.5	649 x 465.5 x 473.5	649 x 478 x 473.5	812 x 584.2 x 520.5	812 x 584.2 x 520.5	812 x 584.2 x 520.5
Weight	24.5 kg	24.5 kg	25.9 kg	43.5 kg	43.5 kg	45.9 kg
Accessories	• Remote control unit: RM-C1305 x 1	• Remote control unit: RM-C1303 x 1	• Remote control unit: RM-C1307 x 1	• Remote control unit: RM-C1305 x 1	• Remote control unit: RM-C1303 x 1	• Remote control unit: RM-C1307 x 1
	AA/R6/UM-3 dry cell battery x 2 Matching aerial-adapter x 1					

Design and specifications subject to change without notice.

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JVC

VICTOR COMPANY OF JAPAN, LIMITED

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied.
- P.W. BOARD Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS	
CR	Carbon Resistor
FR	Fusible Resistor
PR	Plate Resistor
VR	Variable Resistor
HV R	High Voltage Resistor
MF R	Metal Film Resistor
MG R	Metal Glazed Resistor
MP R	Metal Plate Resistor
OM R	Metal Oxide Film Resistor
CMF R	Coating Metal Film Resistor
UNF R	Non-Flammable Resistor
CH V R	Chip Variable Resistor
CH MG R	Chip Metal Glazed Resistor
COMP. R	Composition Resistor
LPTC R	Linear Positive Temperature Coefficient Resistor

CAPACITORS	
C CAP.	Ceramic Capacitor
E CAP.	Electrolytic Capacitor
M CAP.	Mylar Capacitor
CH CAP.	Chip Capacitor
HV CAP.	High Voltage Capacitor
MF CAP.	Metalized Film Capacitor
MM CAP.	Metalized Mylar Capacitor
MP CAP.	Metalized Polystyrol Capacitor
PP CAP.	Polypropylene Capacitor
PS CAP.	Polystyrol Capacitor
TF CAP.	Thin Film Capacitor
MPP CAP.	Metalized Polypropylene Capacitor
TAN. CAP.	Tantalum Capacitor
CH C CAP.	Chip Ceramic Capacitor
BP E CAP.	Bi-Polar Electrolytic Capacitor
CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

RESISTORS									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

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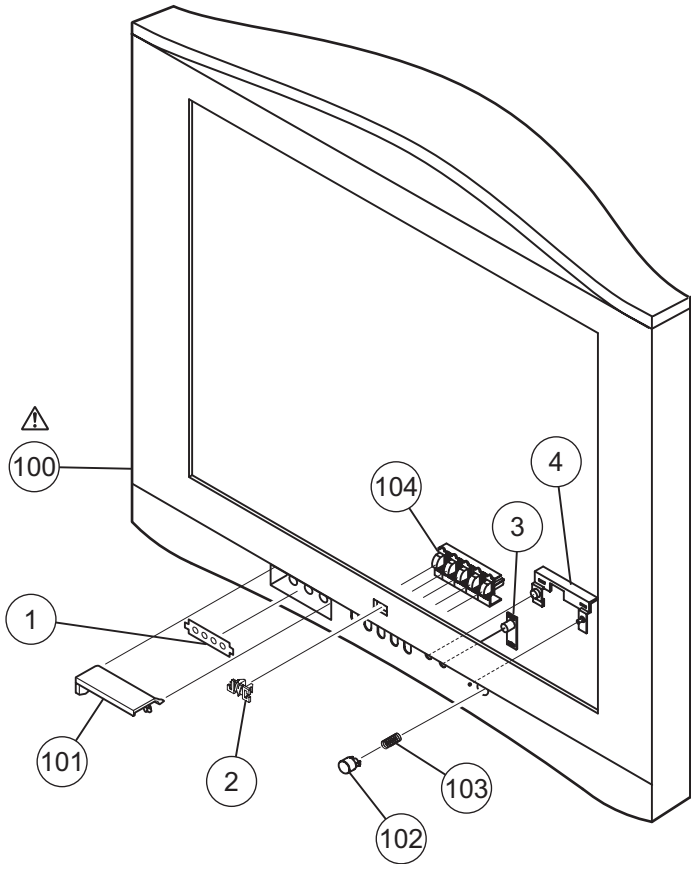
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y	AV-21V311/B	AV-21V511/B	AV-21V531/B
MAIN P.W.B	SCH-1150A-BK	SCH-1151A-BK	SCH-1146A-BK
REMOTE CONTROL UNIT	RM-C1305-1H	RM-C1303-1H	RM-C1307-1H

EXPLODED VIEW PARTS LIST -1

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	GG30068-001A-H	AV SHEET		
	2	GG40023-003A-H	JVC MARK		
	3	GG30044-001B-H	REMOCON LENS		
	4	GG30042-001B-H	LED LENS		
⚠	100	GG10238-006B-H	FRONT CABINET ASS'Y	Inc.101,102,103,104	AV-21V311/B
⚠	100	GG10238-004B-H	FRONT CABINET ASS'Y	Inc.101,102,103,104	AV-21V511/B,AV-21V531/B
	101	GG20044-001C-H	DOOR		
	102	GG30043-002A-H	POWER KNOB		
	103	CM35235-003-H	SPRING		
	104	GG20022-002B-H	CONTROL KNOB		

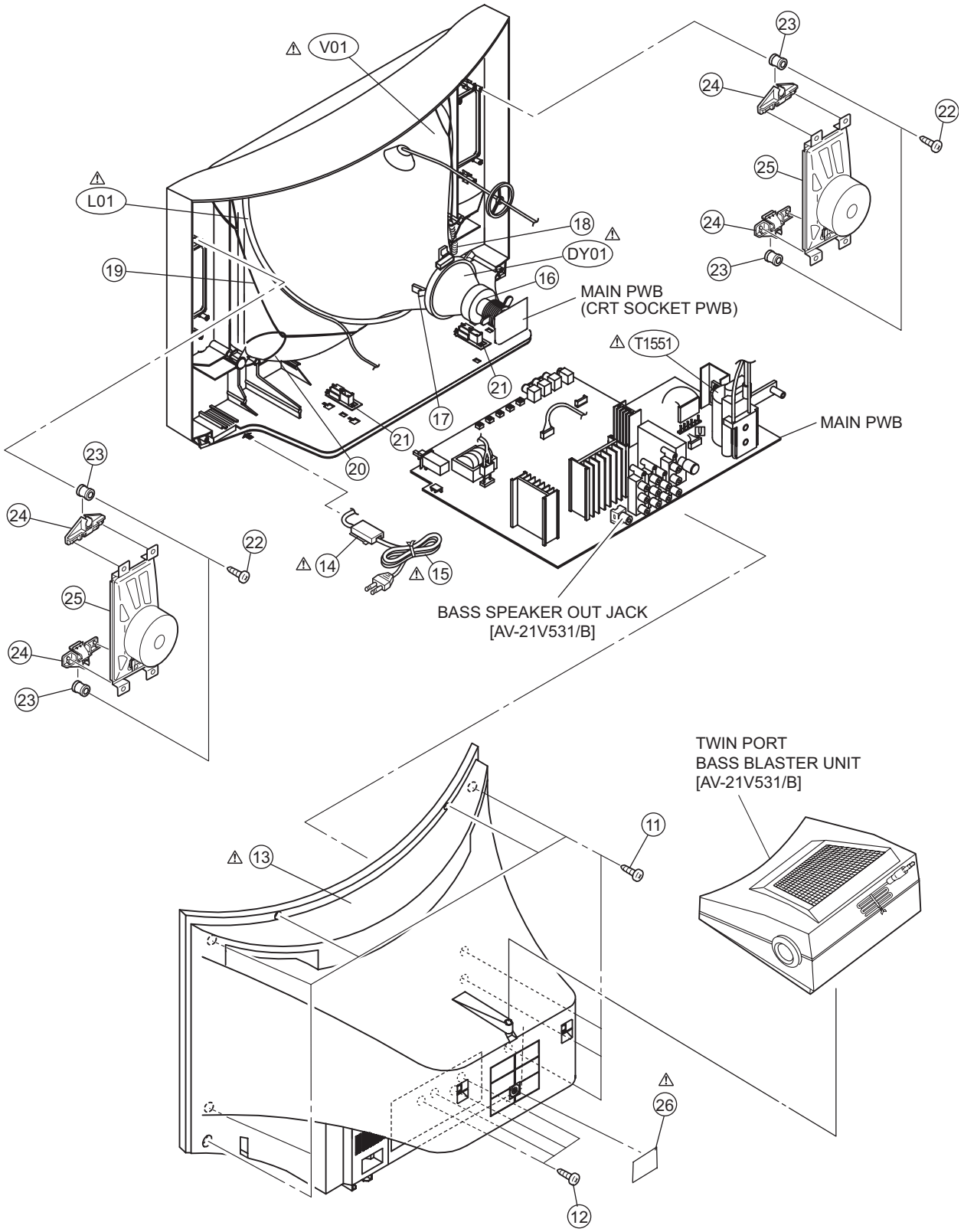
EXPLODED VIEW -1



EXPLODED VIEW PARTS LIST -2

⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	V01	A51QDX992X	PICTURE TUBE		AV-21V311/B,AV-21V511/B
⚠	V01	A51LVV896X	PICTURE TUBE		AV-21V531/B
⚠	DY01	QQD0095-001	DEF YOKE		AV-21V311/B,AV-21V511/B
⚠	DY01	QQD0082-001	DEF YOKE		AV-21V531/B
⚠	L01	QQW0118-001	DEG COIL		AV-21V311/B,AV-21V511/B
⚠	L01	QQW0146-001	DEG COIL		AV-21V531/B
⚠	T1551	QQH0164-001	FB TRANSF		
	11	QYSBSBG4016Z	TAP SCREW	4mm x 16mm(x9)	
	12	QYSBSF3010Z	TAP SCREW	3mm x 10mm(x4)	
⚠	13	GG10187-002B-H	REAR COVER		AV-21V311/B,AV-21V511/B
⚠	13	GG10187-006A-H	REAR COVER		AV-21V531/B
⚠	14	CM47005-A01-H	POWER CORD CLAMP		
⚠	15	QMPR420-165-K2	POWER CORD	1.65m BLACK	
	16	A75034-B	PC MAGNET		
	17	CE40764-00A	WEDGE ASS'Y	(x3)	
	18	A48457-3-H	SPRING		
	19	CHGB0028-0A	BRAIDED ASS'Y		
	20	CHGB0017-0C	BRAIDED SUB ASS'Y		
	21	CM36623-B01-H	CHASSIS RAIL	(x2)	
	22	LC40317-002A-H	TAP SCREW	(x4)	
	23	LC40226-004A-H	SPACER	(x4)	
	24	GG20023-001B-H	SP HOLDER	(x4)	
	25	QAS0139-001	SPEAKER	(x2) SP01,SP02	
⚠	26	GG20024-001B-H	RATING LABEL		

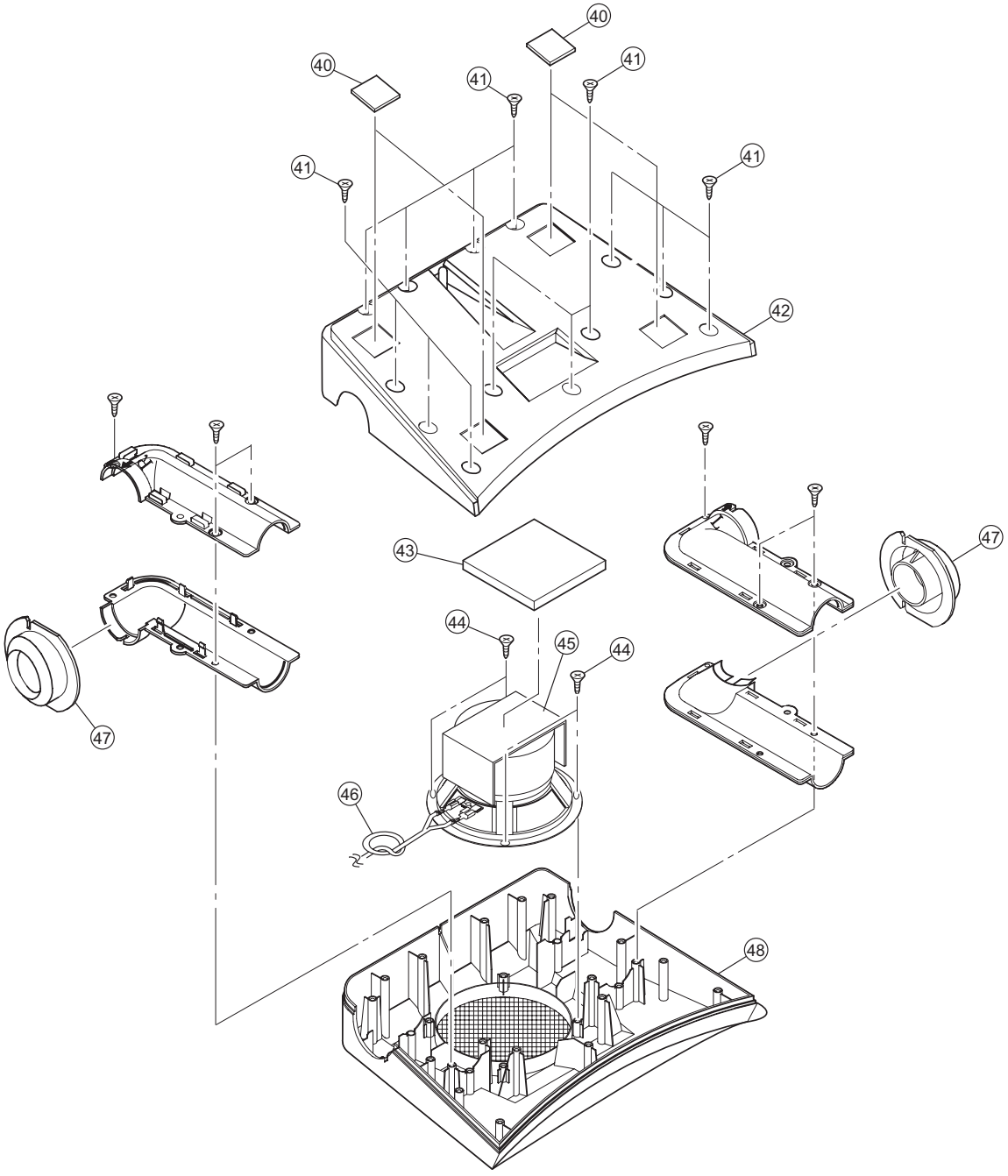
EXPLODED VIEW -2



EXPLODED VIEW PARTS LIST -3 [AV-21V531/B]

⚠	Ref.No.	Part No.	Part Name	Description	Local
	40	LC40352-001A-H	RUBBER SHEET	(x4)	
	41	QYSBSFG4016Z	TAP SCREW	4.0mm x 16mm(x13)	
	42	GG10141-001C-H	BASS BOTTOM		
	43	LC41211-001A	SOUND ABSORBER		
	44	QYSBSFG4016Z	TAP SCREW	4.0mm x 16mm(x4)	
	45	QAS0118-001	SPEAKER	SP03	
	46	WJJ0266-002A	E-SIC WIRE C-C		
	47	GG30022-001A-H	BASS DUCT R	(x2)	
	48	GG10140-001C-H	BASS TOP		

EXPLODED VIEW -3



PRINTED WIRING BOARD PARTS LIST [AV-21V311/B]

MAIN P.W. BOARD ASS'Y (SCH-1150A-BK)

⚠Ref No.	Part No.	Part Name	Description	Local
IC1130	M52342SP	IC		
IC1351	TDA6107JF/N3S30	IC		
IC1401	AN5522	IC		
IC1602	NJW1136GL1-W	IC		
IC1650	AN5277	IC		
IC1701	TDA9386N23I1237	IC (MCU)		
IC1702	AT24W08-21V311B	IC	(SERVICE)	
IC1760	GP1UM281QK	IR DETECT UNIT	38kHz	
IC1801	MM1492AF	IC		
IC1901	STR-F6709A/F7	IC		
IC1951	SE135N	IC		
IC1972	R1141Q331B-X	IC		
IC1974	AN80T36	IC		
Q1101	2SC5083/L-P/-T	TRANSISTOR		
Q1102	UN2212-X	DIGI TRANSISTOR		
Q1104	2SA1530A/QR/-X	TRANSISTOR		
Q1108	2SC3928A/QR/-X	TRANSISTOR		
Q1130	2SA1530A/QR/-X	TRANSISTOR		
Q1131	UN2212-X	DIGI TRANSISTOR		
Q1132	2SC3928A/QR/-X	TRANSISTOR		
Q1133	2SA1530A/QR/-X	TRANSISTOR		
Q1134	UN2212-X	DIGI TRANSISTOR		
Q1135	UN2212-X	DIGI TRANSISTOR		
Q1136	2SC3928A/QR/-X	TRANSISTOR		
Q1137	2SC3928A/QR/-X	TRANSISTOR		
Q1301	2SA1530A/QR/-X	TRANSISTOR		
Q1302	2SA1530A/QR/-X	TRANSISTOR		
Q1351	2SA1530A/QR/-X	TRANSISTOR		
Q1353	2SC3928A/QR/-X	TRANSISTOR		
Q1354	2SC3928A/QR/-X	TRANSISTOR		
Q1355	2SC3928A/QR/-X	TRANSISTOR		
Q1356	2SA1530A/QR/-X	TRANSISTOR		
Q1521	2SC2655/Y/-T	TRANSISTOR		
⚠Q1522	2SD2634-YD	TRANSISTOR	H OUT	
Q1591	2SA1208/ST/Z1-T	TRANSISTOR		
Q1592	UN2212-X	DIGI TRANSISTOR		
Q1660	2SC3928A/QR/-X	TRANSISTOR		
Q1661	2SC3928A/QR/-X	TRANSISTOR		
Q1683	2SA1530A/QR/-X	TRANSISTOR		
Q1684	2SA1530A/QR/-X	TRANSISTOR		
Q1685	DTC323TK-X	DIGI TRANSISTOR		
Q1686	DTC323TK-X	DIGI TRANSISTOR		
Q1701	2SA1530A/QR/-X	TRANSISTOR		
Q1702	2SA1530A/QR/-X	TRANSISTOR		
Q1703	FMC2A-X	D.TRANSISTOR		
Q1720	2SA1530A/QR/-X	TRANSISTOR		
Q1770	2SA1530A/QR/-X	TRANSISTOR		
Q1801	DTC323TK-X	DIGI TRANSISTOR		
Q1802	DTC323TK-X	DIGI TRANSISTOR		
Q1803	2SA1530A/QR/-X	TRANSISTOR		
Q1804	KTC3199/YG/-T	TRANSISTOR		
Q1860	2SC3928A/QR/-X	TRANSISTOR		
Q1861	2SA1530A/QR/-X	TRANSISTOR		
Q1862	2SA1530A/QR/-X	TRANSISTOR		
Q1952	2SC3928A/QR/-X	TRANSISTOR		
Q1953	2SC3928A/QR/-X	TRANSISTOR		
Q1954	2SC3928A/QR/-X	TRANSISTOR		
D1101	1SS268-X	SI DIODE		
D1351	MA111-X	SI DIODE		
D1356	MA111-X	SI DIODE		
D1357	RGP10J-5025-T3	SI DIODE		
D1358	RGP10J-5025-T3	SI DIODE		
D1359	RGP10J-5025-T3	SI DIODE		
D1360	MA3075/M/-X	Z DIODE		
D1361	MA111-X	SI DIODE		
D1362	MA111-X	SI DIODE		
D1363	MA111-X	SI DIODE		
D1364	MA111-X	SI DIODE		
D1367	MA111-X	SI DIODE		
D1370	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
D1401	RGP10J-5025-T3	SI DIODE		
D1402	MTZJ75-T2	Z DIODE		
D1405	1N4003-T2	SI DIODE		
D1408	MA111-X	SI DIODE		
D1521	ERB06-15-F1	SI DIODE		
D1522	RU3AM-LFC4	SI DIODE		
D1523	RGP10J-5025-T3	SI DIODE		
D1541	RGP10J-5025-T3	SI DIODE		
D1550	MA111-X	SI DIODE		
D1551	RGP10J-5025-T3	SI DIODE		

⚠Ref No.	Part No.	Part Name	Description	Local
D1553	RGP10J-5025-T3	SI DIODE		
D1554	RGP10J-5025-T3	SI DIODE		
D1592	MA3075/H/-X	Z DIODE		
D1652	MA3330/L/-X	Z DIODE		
D1653	MA3330/L/-X	Z DIODE		
D1655	MA111-X	SI DIODE		
D1682	MA111-X	SI DIODE		
D1702	MA3024-X	Z DIODE		
D1703	MA3051/M/-X	Z DIODE		
D1704	MA3033-X	Z DIODE		
D1730	MA111-X	SI DIODE		
D1731	MA111-X	SI DIODE		
D1732	MA111-X	SI DIODE		
D1733	MA111-X	SI DIODE		
D1760	LH22440-T16	LED	POWER	
D1770	MA111-X	SI DIODE		
D1771	P1241-04	PHOTO CONDUCTOR		
D1801	MA3120/M/-X	Z DIODE		
D1802	MA3120/M/-X	Z DIODE		
D1807	MA3100/M/-X	Z DIODE		
D1808	MA3100/M/-X	Z DIODE		
D1819	MA3100/M/-X	Z DIODE		
D1820	MA3100/M/-X	Z DIODE		
D1901	GSIB460	BRIDGE DIODE		
D1903	MTZJ12C-T2	Z DIODE		
D1904	EG01C-T2	SI DIODE		
D1906	EG01C-T2	SI DIODE		
D1907	MA3150/M/-X	Z DIODE		
D1908	MTZJ27B-T2	Z DIODE		
D1909	MA111-X	SI DIODE		
D1910	MA111-X	SI DIODE		
D1911	RGP10J-TS-T3	SI DIODE		
D1912	1SS133-T2	SI DIODE		
D1914	ERC30-02L38	SI DIODE		
D1952	ERC30-02L38	SI DIODE		
D1954	RGP30B-F1	SI DIODE		
D1956	RU3AM-LFC4	SI DIODE		
D1957	MA111-X	SI DIODE		
D1964	MA3330/L/-X	Z DIODE		
D1965	1SS133-T2	SI DIODE		
D1966	MA3068/M/-X	Z DIODE		
D1968	MA111-X	SI DIODE		
D1969	MA111-X	SI DIODE		
D1971	MA111-X	SI DIODE		
C1001	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1002	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1003	QFV71HJ-104Z	MF CAPACITOR	0.1uF 50V J	
C1004	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C1005	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1006	QETN1CM-336Z	E CAPACITOR	33uF 16V M	
C1007	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1101	NCB31HK-472X	C CAPACITOR	.	
C1102	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C1103	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C1104	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C1105	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C1106	NDC31HJ-180X	C CAPACITOR	18pF 50V J	
C1107	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1109	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1130	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1131	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1132	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1133	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1134	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1135	QETN1AM-477Z	E CAPACITOR	470uF 10V M	
C1136	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1137	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1138	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1140	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1141	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1142	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1143	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1144	NCB31HK-223X	C CAPACITOR	0.022uF 50V K	
C1308	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1310	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C1352	QFKC2EK-104Z	MM CAPACITOR	0.1uF 250V K	
C1353	QETN2EM-475Z	E CAPACITOR	4.7uF 250V M	
C1355	QCZ0131-821	C CAPACITOR	820pF 2kV K	
C1356	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C1357	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C1358	QETN1CM-476Z	E CAPACITOR	47uF 16V M	
C1361	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C1401	QETN1HM-105Z	E CAPACITOR	1uF 50V M	

⚠Ref No.	Part No.	Part Name	Description Local
C1402	QCB31HK-682Z	C CAPACITOR	6800pF 50V K
C1403	QEHR1VM-227Z	E CAPACITOR	220uF 35V M
C1406	QFLC2AJ-683Z	M CAPACITOR	0.068uF 100V J
C1407	QCS32HJ-180Z	C CAPACITOR	18pF 500V J
C1408	QFV71HJ-184Z	MF CAPACITOR	0.18uF 50V J
C1411	NCF21HZ-334X	C CAPACITOR	0.33uF 50V Z
C1412	NCF21HZ-334X	C CAPACITOR	0.33uF 50V Z
C1413	QFLC2AJ-563Z	M CAPACITOR	0.056uF 100V J
C1422	QEHQ1VM-108	E CAPACITOR	1000uF 35V M
C1521	QETN1VM-476Z	E CAPACITOR	47uF 35V M
C1522	QFLC1HJ-332Z	M CAPACITOR	3300pF 50V J
C1523	QFLC1HJ-223Z	M CAPACITOR	0.022uF 50V J
⚠C1524	QFZ0196-482	MPP CAPACITOR	4800pF 1.5kV H
C1525	QFZ0196-382	MPP CAPACITOR	3800pF 1.5kV H
C1526	QFP32GJ-393	PP CAPACITOR	0.039uF 400V J
C1527	QFZ0197-154	MPP CAPACITOR	0.15uF 250V J
C1528	QFZ0197-124	MPP CAPACITOR	0.12uF 250V J
C1529	QEHR2EM-475Z	E CAPACITOR	4.7uF 250V M
C1530	QCB32HK-561Z	C CAPACITOR	560pF 500V K
C1531	QEHR1EM-108Z	E CAPACITOR	1000uF 25V M
C1533	QEHR1EM-108Z	E CAPACITOR	1000uF 25V M
C1535	QCB32HK-101Z	C CAPACITOR	100pF 500V K
C1536	QFLC1HJ-103Z	M CAPACITOR	0.01uF 50V J
C1540	QFV71HJ-104Z	MF CAPACITOR	0.1uF 50V J
C1541	QETN2EM-106Z	E CAPACITOR	10uF 250V M
C1542	QETN2EM-226Z	E CAPACITOR	22uF 250V M
C1550	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C1591	QETN1AM-107Z	E CAPACITOR	100uF 10V M
C1592	QEZ0203-107	E CAPACITOR	100uF 160V M
C1593	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C1625	NCF21EZ-474X	C CAPACITOR	0.47uF 25V Z
C1626	NCB31HK-333X	C CAPACITOR	0.033uF 50V K
C1627	NCB31HK-473X	C CAPACITOR	0.047uF 50V K
C1628	NCB21HK-823X	C CAPACITOR	0.082uF 50V K
C1629	NCB31HK-222X	C CAPACITOR	2200pF 50V K
C1630	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C1631	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C1632	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C1633	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C1634	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C1635	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C1636	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C1637	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C1638	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C1639	QETN1HM-107Z	E CAPACITOR	100uF 50V M
C1640	NCF21HZ-334X	C CAPACITOR	0.33uF 50V Z
C1641	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C1643	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C1644	NCB31HK-222X	C CAPACITOR	2200pF 50V K
C1645	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C1646	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C1647	NCF21EZ-474X	C CAPACITOR	0.47uF 25V Z
C1650	QEHR1HM-106Z	E CAPACITOR	10uF 50V M
C1651	QEHR1HM-476Z	E CAPACITOR	47uF 50V M
C1652	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C1655	QETM1VM-108	E CAPACITOR	1000uF 35V M
C1656	QETM1VM-108	E CAPACITOR	1000uF 35V M
C1662	QEHR1VM-227Z	E CAPACITOR	220uF 35V M
C1663	NCF21HZ-224X	C CAPACITOR	0.22uF 50V Z
C1664	NCF21HZ-224X	C CAPACITOR	0.22uF 50V Z
C1665	NCF21HZ-224X	C CAPACITOR	0.22uF 50V Z
C1666	NCF21HZ-224X	C CAPACITOR	0.22uF 50V Z
C1681	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C1682	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C1683	QETN1CM-336Z	E CAPACITOR	33uF 16V M
C1684	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
C1701	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C1702	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C1703	NDC31HJ-330X	C CAPACITOR	33pF 50V J
C1704	NDC31HJ-330X	C CAPACITOR	33pF 50V J
C1706	NCB21EK-224X	C CAPACITOR	0.22uF 25V K
C1707	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C1709	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C1710	NCB21EK-224X	C CAPACITOR	0.22uF 25V K
C1711	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C1713	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C1714	QETN1CM-476Z	E CAPACITOR	47uF 16V M
C1720	QETN1CM-476Z	E CAPACITOR	47uF 16V M
C1725	NCB31HK-681X	C CAPACITOR	680pF 50V K
C1730	NCB21EK-224X	C CAPACITOR	0.22uF 25V K
C1731	NCB21EK-224X	C CAPACITOR	0.22uF 25V K
C1732	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C1733	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C1734	NCB31HK-222X	C CAPACITOR	2200pF 50V K
C1735	NCB31HK-222X	C CAPACITOR	2200pF 50V K
C1736	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C1737	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C1738	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C1739	NFV91CJ-104X	MPPS CAPACITOR	0.1uF 16V J
C1740	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C1741	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C1742	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C1743	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C1744	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C1745	NCB31EK-473X	C CAPACITOR	0.047uF 25V K
C1746	NCB31EK-473X	C CAPACITOR	0.047uF 25V K
C1747	NCB31EK-473X	C CAPACITOR	0.047uF 25V K
C1748	QETN1CM-476Z	E CAPACITOR	47uF 16V M
C1749	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C1751	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C1752	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C1753	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C1760	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C1761	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C1770	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C1801	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C1802	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C1803	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C1804	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C1805	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C1806	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C1807	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C1808	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C1809	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C1810	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C1811	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C1812	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C1813	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C1814	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C1815	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C1817	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C1819	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C1820	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C1821	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C1822	QETN1CM-477Z	E CAPACITOR	470uF 16V M
C1823	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C1824	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C1825	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C1826	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C1827	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C1829	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C1830	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C1831	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C1833	QETN1HM-226Z	E CAPACITOR	22uF 50V M
C1834	NDC31HJ-181X	C CAPACITOR	180pF 50V J
⚠C1901	QFZ9077-104	MPP CAPACITOR	0.1uF AC250V M
⚠C1902	QFZ9072-473	MM CAPACITOR	0.047uF AC250V K
C1903	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z
C1904	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z
C1905	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z
⚠C1906	QFZ9072-224	MM CAPACITOR	0.22uF AC250V K
C1907	QEZ0649-227	E CAPACITOR	220uF 400V M
C1908	QFZ0209-222	MPP CAPACITOR	2200pF 6A H
C1910	NDC31HJ-471X	C CAPACITOR	470pF 50V J
C1911	QEHR1EM-227Z	E CAPACITOR	220uF 25V M
C1914	QETN1EM-227Z	E CAPACITOR	220uF 25V M
C1915	QFLC1HJ-152Z	M CAPACITOR	1500pF 50V J
C1916	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C1952	QCB32HK-471Z	C CAPACITOR	470pF 500V K
C1953	QEHQ1VM-108	E CAPACITOR	1000uF 35V M
C1954	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C1957	QCB32HK-471Z	C CAPACITOR	470pF 500V K
C1958	QEHQ1EM-228	E CAPACITOR	2200uF 25V M
C1959	QCZ0364-561	C CAPACITOR	560pF 2kV K
C1960	QEZ0203-107	E CAPACITOR	100uF 160V M
C1961	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C1962	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C1963	QCZ0364-122	C CAPACITOR	1200pF 2kV K
C1964	QETN1CM-476Z	E CAPACITOR	47uF 16V M
C1965	QEHR1HM-225Z	E CAPACITOR	2.2uF 50V M
C1968	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C1969	QEHR1CM-227Z	E CAPACITOR	220uF 16V M
C1972	QETN1CM-476Z	E CAPACITOR	47uF 16V M
C1973	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C1974	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C1975	QEHR1CM-227Z	E CAPACITOR	220uF 16V M
C1976	QEHR1CM-107Z	E CAPACITOR	100uF 16V M
C1977	QETN1AM-477Z	E CAPACITOR	470uF 10V M
C1978	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C1980	QETN1CM-107Z	E CAPACITOR	100uF 16V M
⚠C1991	QCZ9079-471	C CAPACITOR	470pF AC250V K
⚠C1992	QCZ9079-471	C CAPACITOR	470pF AC250V K
⚠C1993	QCZ9079-102	C CAPACITOR	1000pF AC250V M

⚠Ref No.	Part No.	Part Name	Description Local
R1001	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1002	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1003	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R1004	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1006	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R1007	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1101	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R1102	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1103	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R1104	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R1105	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J
R1106	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1107	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1108	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1109	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1111	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1117	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1130	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1131	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1132	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1133	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
R1134	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
R1135	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R1136	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1137	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1138	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1139	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1140	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
R1141	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
R1142	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R1143	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1144	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J
R1145	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J
R1146	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1147	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1148	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R1301	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1302	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1303	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R1304	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1305	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1306	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R1350	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R1351	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R1353	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R1354	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R1361	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1363	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K
R1364	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R1365	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K
R1368	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K
R1369	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R1373	QRE121J-394Y	C RESISTOR	390kΩ 1/2W J
R1374	QRE121J-124Y	C RESISTOR	120kΩ 1/2W J
R1380	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1381	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1382	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1383	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1384	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R1387	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R1388	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R1390	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1391	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J
R1397	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1401	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R1403	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1405	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1406	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R1408	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1410	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R1411	QRG01GJ-221	OMF RESISTOR	220Ω 1W J
R1412	QRE121J-1R0Y	C RESISTOR	1Ω 1/2W J
R1413	QRX01GJ-2R7	MF RESISTOR	2.7Ω 1W J
R1414	QRE121J-120Y	C RESISTOR	12Ω 1/2W J
R1425	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R1521	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1522	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1524	QRL029J-270	OMF RESISTOR	27Ω 2W J
R1526	QRG01GJ-271	OMF RESISTOR	270Ω 1W J
R1527	QRL039J-103	OMF RESISTOR	10kΩ 3W J
R1528	QRX029J-R47	MF RESISTOR	0.47Ω 2W J
R1529	QRX029J-R47	MF RESISTOR	0.47Ω 2W J
R1531	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
⚠R1532	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J
⚠R1540	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J
R1541	QRE121J-104Y	C RESISTOR	100kΩ 1/2W J
R1542	QRE121J-224Y	C RESISTOR	220kΩ 1/2W J
R1543	QRE121J-471Y	C RESISTOR	470Ω 1/2W J
R1545	QRE121J-220Y	C RESISTOR	22Ω 1/2W J
R1546	QRE121J-822Y	C RESISTOR	8.2kΩ 1/2W J
R1591	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R1592	QRZ0225-2R2	UNF RESISTOR	2.2Ω 7W K
R1593	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1594	QRE121J-183Y	C RESISTOR	18kΩ 1/2W J
R1595	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1623	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R1624	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1625	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1627	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1628	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1650	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1651	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1654	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1655	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1660	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1661	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J
R1662	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R1663	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1664	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1686	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1687	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1688	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R1690	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1691	QRE121J-2R2Y	C RESISTOR	2.2Ω 1/2W J
R1692	QRE121J-2R2Y	C RESISTOR	2.2Ω 1/2W J
R1698	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1699	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1701	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1702	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1703	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1704	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1705	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1706	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1707	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1708	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1709	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1710	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1711	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1712	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1713	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1714	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1715	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1716	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1717	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1718	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1719	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1720	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1721	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1722	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1723	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1724	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1725	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1726	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1727	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1728	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1729	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R1730	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R1731	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1732	NRSA02F-393X	MG RESISTOR	39kΩ 1/10W F
R1733	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R1734	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R1735	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1736	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R1737	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R1738	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1739	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1740	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1741	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1742	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1743	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R1744	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R1745	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J
R1746	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R1747	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1748	NRSA63J-475X	MG RESISTOR	4.7MΩ 1/16W J
R1749	NRSA63J-475X	MG RESISTOR	4.7MΩ 1/16W J
R1750	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1755	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1756	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1757	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1758	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1760	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1770	QRE121J-271Y	C RESISTOR	270Ω 1/2W J
R1771	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J

⚠Ref No.	Part No.	Part Name	Description Local
R1772	QRE121J-271Y	C RESISTOR	270Ω 1/2W J
R1773	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1775	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R1776	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R1777	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R1779	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R1780	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1781	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R1782	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R1783	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1784	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R1785	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1801	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1802	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1803	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R1804	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1805	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1806	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1807	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1808	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R1809	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R1810	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R1811	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R1812	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1813	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1815	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1817	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1818	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1819	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1820	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1821	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1823	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1824	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1826	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1829	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1830	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1831	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1832	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R1833	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1834	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R1835	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R1836	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1837	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1838	QRK126J-121X	UNF C RESISTOR	120Ω 1/2W J
R1839	QRE121J-221Y	C RESISTOR	220Ω 1/2W J
R1840	QRE121J-221Y	C RESISTOR	220Ω 1/2W J
R1841	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1842	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1843	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J
R1844	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1845	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1846	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1847	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1848	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1849	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1880	NRSA63J-202X	MG RESISTOR	2kΩ 1/16W J
R1881	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1882	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1883	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R1902	QRF154K-2R2	UNF WW RESISTOR	2.2Ω 15W K
R1904	QRE121J-681Y	C RESISTOR	680Ω 1/2W J
R1905	QRM034J-R15	MP RESISTOR	0.15Ω 3W J
R1907	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R1908	QRL039J-333	OMF RESISTOR	33kΩ 3W J
R1909	QRE121J-474Y	C RESISTOR	470kΩ 1/2W J
R1910	QRE121J-472Y	C RESISTOR	4.7kΩ 1/2W J
R1911	QRE121J-332Y	C RESISTOR	3.3kΩ 1/2W J
R1912	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
R1913	QRE121J-3R9Y	C RESISTOR	3.9Ω 1/2W J
⚠R1915	QRZ0107-474Z	C RESISTOR	470kΩ 1/2W K
R1952	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R1953	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1957	QRE121J-6R8Y	C RESISTOR	6.8Ω 1/2W J
R1960	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R1961	QRL029J-223	OMF RESISTOR	22kΩ 2W J
R1962	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R1963	QRE121J-103Y	C RESISTOR	10kΩ 1/2W J
R1964	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R1965	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1966	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1967	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R1970	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R1971	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
R1972	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
⚠R1991	QRZ9046-825Z	C RESISTOR	8.2MΩ 1/2W K
L1002	CE42050-001Z	BEADS CORE	

⚠Ref No.	Part No.	Part Name	Description Local
L1101	QQLZ014-R82	COIL	0.82uH 100mA L
L1351	QQL244J-5R6Z	COIL	5.6uH J
L1523	QQR1005-004	LINEARITY COIL	
L1524	QQLZ034-760	COIL	76uH
L1701	QQL244K-100Z	PEAKING COIL	10uH K
L1702	QQL244K-100Z	PEAKING COIL	10uH K
L1731	QQL244J-5R6Z	COIL	5.6uH J
L1732	QQL244J-5R6Z	COIL	5.6uH J
L1951	QQLZ034-460	HEATER CHOKE	46uH
L1953	QQL244J-5R6Z	COIL	5.6uH J
L1954	QQL244J-5R6Z	COIL	5.6uH J
L1955	QQL26AK-560Z	CHOKE COIL	56uH K
T1521	CE40203-00CJ1	DRIVE TRANSF	
⚠T1901	QQS0216-001	SW TRANSF	
⚠PC1901	PC123F2	PHOTO COUPLER	
CF1130	QAX0694-001Z	C FILTER	5.742MHz
CF1131	QAX0694-001Z	C FILTER	5.742MHz
CF1140	QAX0695-001Z	C FILTER	5.500MHz
CL1001	QZW0027-002	WIRE CLAMP	
CL1002	QZW0028-002	WIRE CLAMP	
⚠CP1951	ICP-N75-Y	IC PROTECTOR	2.7A
⚠CP1953	ICP-N75-Y	IC PROTECTOR	2.7A
⚠F1901	QMF51E2-4R0J4	FUSE	4A AC250V
FC1901	CEMG002-001Z	FUSE CLIP	(x2)
J1770	QNS0155-001	3.5 JACK	HEADPHONE
J1771	QNN0282-003	PIN JACK	VIDEO3 V IN
J1772	QNN0282-002	PIN JACK	VIDEO3 L IN
J1773	QNN0282-001	PIN JACK	VIDEO3 R IN
J1801	QNZ0454-001	AV JACK	VIDEO1 IN
J1802	QNN0349-002	PIN JACK	COMP/VIDEO2 IN
J1803	QNN0348-001	PIN JACK	VIDEO2 L,R IN
J1804	QNN0349-001	PIN JACK	OUTPUT
K1101	QQR1114-001Z	FERRITE BEADS	
K1102	QQR1114-001Z	FERRITE BEADS	
K1103	QQR1113-001Z	FERRITE BEADS	
K1105	QQR1113-001Z	FERRITE BEADS	
K1106	QQR1113-001Z	FERRITE BEADS	
K1108	QQR1114-001Z	FERRITE BEADS	
K1109	QQR1114-001Z	FERRITE BEADS	
K1701	QQR1113-001Z	FERRITE BEADS	
K1702	QQR1114-001Z	FERRITE BEADS	
K1902	QQR1114-001Z	FERRITE BEADS	
K1903	QQR1114-001Z	FERRITE BEADS	
K1951	QQR1113-001Z	FERRITE BEADS	
K1954	QQR1113-001Z	FERRITE BEADS	
K1955	QQR1214-001Y	FERRITE BEADS	
⚠LF1901	QQR0673-004	LINE FILTER	
⚠LF1902	QQR1035-002	LINE FILTER	
⚠RY1901	QSK0092-001	RELAY	
S1780	QSW0619-003Z	TACT SWITCH	MENU
S1781	QSW0619-003Z	TACT SWITCH	CH-
S1782	QSW0619-003Z	TACT SWITCH	CH+
S1783	QSW0619-003Z	TACT SWITCH	VOL-
S1784	QSW0619-003Z	TACT SWITCH	VOL+
⚠S1901	QSW0846-001	PUSH SWITCH	POWER
SF1101	QAX0325-001	SAW FILTER	
SF1102	QAX0731-001	SAW FILTER	
⚠SK1351	QNZ0537-001	CRT SOCKET	
⚠TH1901	QAD0134-4R5	P THERMISTOR	4.5Ω
TU1001	QAU0287-001	TUNER	
⚠VA1901	QAF0052-621	VARISTOR	620V
W1008	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1200	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1201	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1239	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1257	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1258	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1301	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1307	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1309	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1322	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1325	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1330	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1333	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1375	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1379	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1416	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1418	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1428	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1430	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1442	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
X1701	QAX0737-001	CRYSTAL	12.000MHz
Y1001	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
Y1003	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
Y1102	QQR1114-001Z	FERRITE BEADS	

⚠Ref No.	Part No.	Part Name	Description	Local
Y1301	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1601	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1918	1SS133-T2	SI DIODE		
	LC30114-001C-H	LED HOLDER		
	CM35921-005-H	CDS HOLDER		

PRINTED WIRING BOARD PARTS LIST [AV-21V511/B]

MAIN P.W. BOARD ASS'Y (SCH-1151A-BK)

⚠Ref No.	Part No.	Part Name	Description Local
IC1351	TDA6107JF/N3S30	IC	
IC1401	AN5522	IC	
IC1601	MSP3417GQGB8V3X	IC	
IC1602	NJW1136GL1-W	IC	
IC1650	AN5277	IC	
IC1701	TDA9386N23I1237	IC (MCU)	
IC1702	AT24WC08-21VS21	IC	(SERVICE)
IC1760	GP1UM281QK	IR DETECT UNIT	38kHz
IC1801	MM1492AF	IC	
IC1901	STR-F6709A/F7	IC	
IC1951	SE135N	IC	
IC1972	R1141Q331B-X	IC	
IC1974	AN80T36	IC	
Q1101	2SC5083/L-P/-T	TRANSISTOR	
Q1102	UN2212-X	DIGI TRANSISTOR	
Q1103	UN2212-X	DIGI TRANSISTOR	
Q1104	2SA1530A/QR/-X	TRANSISTOR	
Q1105	UN2212-X	DIGI TRANSISTOR	
Q1106	UN2212-X	DIGI TRANSISTOR	
Q1108	2SC3928A/QR/-X	TRANSISTOR	
Q1109	2SA1530A/QR/-X	TRANSISTOR	
Q1110	UN2212-X	DIGI TRANSISTOR	
Q1111	2SC3928A/QR/-X	TRANSISTOR	
Q1150	2SC3928A/QR/-X	TRANSISTOR	
Q1301	2SA1530A/QR/-X	TRANSISTOR	
Q1302	2SA1530A/QR/-X	TRANSISTOR	
Q1351	2SA1530A/QR/-X	TRANSISTOR	
Q1353	2SC3928A/QR/-X	TRANSISTOR	
Q1354	2SC3928A/QR/-X	TRANSISTOR	
Q1355	2SC3928A/QR/-X	TRANSISTOR	
Q1356	2SA1530A/QR/-X	TRANSISTOR	
Q1521	2SC2655/Y/-T	TRANSISTOR	
⚠Q1522	2SD2634-YD	TRANSISTOR	H OUT
Q1591	2SA1208/ST/Z1-T	TRANSISTOR	
Q1592	UN2212-X	DIGI TRANSISTOR	
Q1660	2SC3928A/QR/-X	TRANSISTOR	
Q1661	2SC3928A/QR/-X	TRANSISTOR	
Q1683	2SA1530A/QR/-X	TRANSISTOR	
Q1684	2SA1530A/QR/-X	TRANSISTOR	
Q1685	DTC323TK-X	DIGI TRANSISTOR	
Q1686	DTC323TK-X	DIGI TRANSISTOR	
Q1701	2SA1530A/QR/-X	TRANSISTOR	
Q1702	2SA1530A/QR/-X	TRANSISTOR	
Q1703	FMC2A-X	D.TRANSISTOR	
Q1720	2SA1530A/QR/-X	TRANSISTOR	
Q1770	2SA1530A/QR/-X	TRANSISTOR	
Q1801	DTC323TK-X	DIGI TRANSISTOR	
Q1802	DTC323TK-X	DIGI TRANSISTOR	
Q1803	2SA1530A/QR/-X	TRANSISTOR	
Q1804	KTC3199/YG/-T	TRANSISTOR	
Q1860	2SC3928A/QR/-X	TRANSISTOR	
Q1861	2SA1530A/QR/-X	TRANSISTOR	
Q1862	2SA1530A/QR/-X	TRANSISTOR	
Q1952	2SC3928A/QR/-X	TRANSISTOR	
Q1953	2SC3928A/QR/-X	TRANSISTOR	
Q1954	2SC3928A/QR/-X	TRANSISTOR	
D1101	1SS268-X	SI DIODE	
D1351	MA111-X	SI DIODE	
D1356	MA111-X	SI DIODE	
D1357	RGP10J-5025-T3	SI DIODE	
D1358	RGP10J-5025-T3	SI DIODE	
D1359	RGP10J-5025-T3	SI DIODE	
D1360	MA3075/M/-X	Z DIODE	
D1361	MA111-X	SI DIODE	
D1362	MA111-X	SI DIODE	
D1363	MA111-X	SI DIODE	
D1364	MA111-X	SI DIODE	
D1367	MA111-X	SI DIODE	
D1370	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
D1401	RGP10J-5025-T3	SI DIODE	
D1402	MTZJ75-T2	Z DIODE	
D1405	1N4003-T2	SI DIODE	
D1408	MA111-X	SI DIODE	
D1521	ERB06-15-F1	SI DIODE	
D1522	RU3AM-LFC4	SI DIODE	
D1523	RGP10J-5025-T3	SI DIODE	
D1541	RGP10J-5025-T3	SI DIODE	
D1550	MA111-X	SI DIODE	
D1551	RGP10J-5025-T3	SI DIODE	
D1553	RGP10J-5025-T3	SI DIODE	

⚠Ref No.	Part No.	Part Name	Description Local
D1554	RGP10J-5025-T3	SI DIODE	
D1592	MA3075/H/-X	Z DIODE	
D1652	MA3330/L/-X	Z DIODE	
D1653	MA3330/L/-X	Z DIODE	
D1655	MA111-X	SI DIODE	
D1682	MA111-X	SI DIODE	
D1702	MA3024-X	Z DIODE	
D1703	MA3051/M/-X	Z DIODE	
D1704	MA3033-X	Z DIODE	
D1730	MA111-X	SI DIODE	
D1731	MA111-X	SI DIODE	
D1732	MA111-X	SI DIODE	
D1733	MA111-X	SI DIODE	
D1760	LH22440-T16	LED	POWER
D1770	MA111-X	SI DIODE	
D1771	P1241-04	PHOTO CONDUCTOR	
D1801	MA3120/M/-X	Z DIODE	
D1802	MA3120/M/-X	Z DIODE	
D1807	MA3100/M/-X	Z DIODE	
D1808	MA3100/M/-X	Z DIODE	
D1819	MA3100/M/-X	Z DIODE	
D1820	MA3100/M/-X	Z DIODE	
D1901	GSIB460	BRIDGE DIODE	
D1903	MTZJ12C-T2	Z DIODE	
D1904	EG01C-T2	SI DIODE	
D1906	EG01C-T2	SI DIODE	
D1907	MA3150/M/-X	Z DIODE	
D1908	MTZJ27B-T2	Z DIODE	
D1909	MA111-X	SI DIODE	
D1910	MA111-X	SI DIODE	
D1911	RGP10J-TS-T3	SI DIODE	
D1912	1SS133-T2	SI DIODE	
D1914	ERC30-02L38	SI DIODE	
D1952	ERC30-02L38	SI DIODE	
D1954	RGP30B-F1	SI DIODE	
D1956	RU3AM-LFC4	SI DIODE	
D1957	MA111-X	SI DIODE	
D1964	MA3330/L/-X	Z DIODE	
D1965	1SS133-T2	SI DIODE	
D1966	MA3068/M/-X	Z DIODE	
D1968	MA111-X	SI DIODE	
D1969	MA111-X	SI DIODE	
D1971	MA111-X	SI DIODE	
C1001	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C1002	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C1003	QFV71HJ-104Z	MF CAPACITOR	0.1uF 50V J
C1004	QETN1CM-477Z	E CAPACITOR	470uF 16V M
C1005	NCB31HK-222X	C CAPACITOR	2200pF 50V K
C1006	QETN1CM-336Z	E CAPACITOR	33uF 16V M
C1007	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C1101	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C1102	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C1103	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C1104	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C1105	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C1106	NDC31HJ-180X	C CAPACITOR	18pF 50V J
C1107	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C1108	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C1109	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C1150	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C1151	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C1308	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C1310	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C1352	QFK62EK-104Z	MM CAPACITOR	0.1uF 250V K
C1353	QETN2EM-475Z	E CAPACITOR	4.7uF 250V M
C1355	QCZ0131-821	C CAPACITOR	820pF 2kV K
C1356	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C1357	NDC31HJ-101X	C CAPACITOR	100pF 50V J
C1358	QETN1CM-476Z	E CAPACITOR	47uF 16V M
C1361	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C1401	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C1402	QCB31HK-682Z	C CAPACITOR	6800pF 50V K
C1403	QEHR1VM-227Z	E CAPACITOR	220uF 35V M
C1406	QFLC2AJ-683Z	M CAPACITOR	0.068uF 100V J
C1407	QCS32HJ-180Z	C CAPACITOR	18pF 500V J
C1408	QFV71HJ-184Z	MF CAPACITOR	0.18uF 50V J
C1411	NCF21HZ-334X	C CAPACITOR	0.33uF 50V Z
C1412	NCF21HZ-334X	C CAPACITOR	0.33uF 50V Z
C1413	QFLC2AJ-563Z	M CAPACITOR	0.056uF 100V J
C1422	QEHQ1VM-108	E CAPACITOR	1000uF 35V M
C1521	QETN1VM-476Z	E CAPACITOR	47uF 35V M
C1522	QFLC1HJ-332Z	M CAPACITOR	3300pF 50V J
C1523	QFLC1HJ-223Z	M CAPACITOR	0.022uF 50V J

⚠Ref No.	Part No.	Part Name	Description	Local
⚠C1524	QFZ0196-482	MPP CAPACITOR	4800pF 1.5kV	H
C1525	QFZ0196-382	MPP CAPACITOR	3800pF 1.5kV	H
C1526	QFP32GJ-393	PP CAPACITOR	0.039uF 400V	J
C1527	QFZ0197-154	MPP CAPACITOR	0.15uF 250V	J
C1528	QFZ0197-124	MPP CAPACITOR	0.12uF 250V	J
C1529	QEHR2EM-475Z	E CAPACITOR	4.7uF 250V	M
C1530	QCB32HK-561Z	C CAPACITOR	560pF 500V	K
C1531	QEHR1EM-108Z	E CAPACITOR	1000uF 25V	M
C1533	QEHR1EM-108Z	E CAPACITOR	1000uF 25V	M
C1535	QCB32HK-101Z	C CAPACITOR	100pF 500V	K
C1536	QFLC1HJ-103Z	M CAPACITOR	0.01uF 50V	J
C1540	QFV71HJ-104Z	MF CAPACITOR	0.1uF 50V	J
C1541	QETN2EM-106Z	E CAPACITOR	10uF 250V	M
C1542	QETN2EM-226Z	E CAPACITOR	22uF 250V	M
C1550	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1591	QETN1AM-107Z	E CAPACITOR	100uF 10V	M
C1592	QEZ0203-107	E CAPACITOR	100uF 160V	M
C1593	QETN1EM-476Z	E CAPACITOR	47uF 25V	M
C1602	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1603	QETN1CM-107Z	E CAPACITOR	100uF 16V	M
C1604	NCB31HK-104X	C CAPACITOR	0.1uF 50V	K
C1606	NDC31HJ-2R0X	C CAPACITOR	2pF 50V	J
C1607	NDC31HJ-2R0X	C CAPACITOR	2pF 50V	J
C1608	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1609	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1610	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1611	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1612	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1613	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1615	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1616	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1617	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1619	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1620	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1621	NCB31HK-102X	C CAPACITOR	1000pF 50V	K
C1622	NCB31HK-102X	C CAPACITOR	1000pF 50V	K
C1625	NCF21EZ-474X	C CAPACITOR	0.47uF 25V	Z
C1626	NCB31HK-333X	C CAPACITOR	0.033uF 50V	K
C1627	NCB31HK-473X	C CAPACITOR	0.047uF 50V	K
C1628	NCB21HK-823X	C CAPACITOR	0.082uF 50V	K
C1629	NCB31HK-222X	C CAPACITOR	2200pF 50V	K
C1630	NCB31HK-104X	C CAPACITOR	0.1uF 50V	K
C1631	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C1632	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C1633	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C1634	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C1635	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C1636	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C1637	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C1638	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C1639	QETN1HM-107Z	E CAPACITOR	100uF 50V	M
C1640	NCF21HZ-334X	C CAPACITOR	0.33uF 50V	Z
C1641	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C1643	NCB31HK-104X	C CAPACITOR	0.1uF 50V	K
C1644	NCB31HK-222X	C CAPACITOR	2200pF 50V	K
C1645	NCB31HK-104X	C CAPACITOR	0.1uF 50V	K
C1646	NCB31HK-104X	C CAPACITOR	0.1uF 50V	K
C1647	NCF21EZ-474X	C CAPACITOR	0.47uF 25V	Z
C1650	QEHR1HM-106Z	E CAPACITOR	10uF 50V	M
C1651	QEHR1HM-476Z	E CAPACITOR	47uF 50V	M
C1652	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1655	QETM1VM-108	E CAPACITOR	1000uF 35V	M
C1656	QETM1VM-108	E CAPACITOR	1000uF 35V	M
C1662	QEHR1VM-227Z	E CAPACITOR	220uF 35V	M
C1663	NCF21HZ-224X	C CAPACITOR	0.22uF 50V	Z
C1664	NCF21HZ-224X	C CAPACITOR	0.22uF 50V	Z
C1665	NCF21HZ-224X	C CAPACITOR	0.22uF 50V	Z
C1666	NCF21HZ-224X	C CAPACITOR	0.22uF 50V	Z
C1681	QETN1CM-227Z	E CAPACITOR	220uF 16V	M
C1682	QETN1CM-227Z	E CAPACITOR	220uF 16V	M
C1683	QETN1CM-336Z	E CAPACITOR	33uF 16V	M
C1684	QETN1HM-475Z	E CAPACITOR	4.7uF 50V	M
C1701	QETN1CM-227Z	E CAPACITOR	220uF 16V	M
C1702	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1703	NDC31HJ-330X	C CAPACITOR	33pF 50V	J
C1704	NDC31HJ-330X	C CAPACITOR	33pF 50V	J
C1706	NCB21EK-224X	C CAPACITOR	0.22uF 25V	K
C1707	QETN1CM-107Z	E CAPACITOR	100uF 16V	M
C1709	QETN1CM-107Z	E CAPACITOR	100uF 16V	M
C1710	NCB21EK-224X	C CAPACITOR	0.22uF 25V	K
C1711	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1713	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1714	QETN1CM-476Z	E CAPACITOR	47uF 16V	M
C1720	QETN1CM-476Z	E CAPACITOR	47uF 16V	M
C1725	NCB31HK-681X	C CAPACITOR	680pF 50V	K
C1730	NCB21EK-224X	C CAPACITOR	0.22uF 25V	K
C1731	NCB21EK-224X	C CAPACITOR	0.22uF 25V	K

⚠Ref No.	Part No.	Part Name	Description	Local
C1732	QETN1CM-107Z	E CAPACITOR	100uF 16V	M
C1733	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1734	NCB31HK-222X	C CAPACITOR	2200pF 50V	K
C1735	NCB31HK-222X	C CAPACITOR	2200pF 50V	K
C1736	QETN1HM-105Z	E CAPACITOR	1uF 50V	M
C1737	QETN1HM-105Z	E CAPACITOR	1uF 50V	M
C1738	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1739	NFV91CJ-104X	MPPS CAPACITOR	0.1uF 16V	J
C1740	QETN1HM-225Z	E CAPACITOR	2.2uF 50V	M
C1741	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1742	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1743	QETN1CM-107Z	E CAPACITOR	100uF 16V	M
C1744	NCB31HK-102X	C CAPACITOR	1000pF 50V	K
C1745	NCB31EK-473X	C CAPACITOR	0.047uF 25V	K
C1746	NCB31EK-473X	C CAPACITOR	0.047uF 25V	K
C1747	NCB31EK-473X	C CAPACITOR	0.047uF 25V	K
C1748	QETN1CM-476Z	E CAPACITOR	47uF 16V	M
C1749	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1751	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1752	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1753	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1760	NCB31HK-104X	C CAPACITOR	0.1uF 50V	K
C1761	QETN1CM-107Z	E CAPACITOR	100uF 16V	M
C1770	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1801	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1802	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1803	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1804	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1805	NCB31HK-104X	C CAPACITOR	0.1uF 50V	K
C1806	NCB31HK-104X	C CAPACITOR	0.1uF 50V	K
C1807	NCF31AZ-105X	C CAPACITOR	1uF 10V	Z
C1808	NCF31AZ-105X	C CAPACITOR	1uF 10V	Z
C1809	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1810	NCF31AZ-105X	C CAPACITOR	1uF 10V	Z
C1811	NCB31HK-104X	C CAPACITOR	0.1uF 50V	K
C1812	NCF31AZ-105X	C CAPACITOR	1uF 10V	Z
C1813	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1814	NCB31HK-104X	C CAPACITOR	0.1uF 50V	K
C1815	NCF31AZ-105X	C CAPACITOR	1uF 10V	Z
C1817	NCF31AZ-105X	C CAPACITOR	1uF 10V	Z
C1819	NCB31HK-104X	C CAPACITOR	0.1uF 50V	K
C1820	NCF31AZ-105X	C CAPACITOR	1uF 10V	Z
C1821	NCF31AZ-105X	C CAPACITOR	1uF 10V	Z
C1822	QETN1CM-477Z	E CAPACITOR	470uF 16V	M
C1823	QETN1CM-107Z	E CAPACITOR	100uF 16V	M
C1824	QETN1CM-107Z	E CAPACITOR	100uF 16V	M
C1825	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1826	NCB31HK-104X	C CAPACITOR	0.1uF 50V	K
C1827	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1829	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1830	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1831	NCB31HK-103X	C CAPACITOR	0.01uF 50V	K
C1833	QETN1HM-226Z	E CAPACITOR	22uF 50V	M
C1834	NDC31HJ-181X	C CAPACITOR	180pF 50V	J
⚠C1901	QFZ9077-104	MPP CAPACITOR	0.1uF AC250V	M
⚠C1902	QFZ9072-473	MM CAPACITOR	0.047uF AC250V	K
C1903	QCZ9015-102Z	C CAPACITOR	1000pF AC250V	Z
C1904	QCZ9015-102Z	C CAPACITOR	1000pF AC250V	Z
C1905	QCZ9015-102Z	C CAPACITOR	1000pF AC250V	Z
⚠C1906	QFZ9072-224	MM CAPACITOR	0.22uF AC250V	K
C1907	QEZ0649-227	E CAPACITOR	220uF 400V	M
C1908	QFZ0209-222	MPP CAPACITOR	2200pF 6A	H
C1910	NDC31HJ-471X	C CAPACITOR	470pF 50V	J
C1911	QEHR1EM-227Z	E CAPACITOR	220uF 25V	M
C1914	QETN1EM-227Z	E CAPACITOR	220uF 25V	M
C1915	QFLC1HJ-152Z	M CAPACITOR	1500pF 50V	J
C1916	NCB31HK-104X	C CAPACITOR	0.1uF 50V	K
C1952	QCB32HK-471Z	C CAPACITOR	470pF 500V	K
C1953	QEHQ1VM-108	E CAPACITOR	1000uF 35V	M
C1954	NCB31HK-102X	C CAPACITOR	1000pF 50V	K
C1957	QCB32HK-471Z	C CAPACITOR	470pF 500V	K
C1958	QEHQ1EM-228	E CAPACITOR	2200uF 25V	M
C1959	QCZ0364-561	C CAPACITOR	560pF 2kV	K
C1960	QEZ0203-107	E CAPACITOR	100uF 160V	M
C1961	QETN1HM-225Z	E CAPACITOR	2.2uF 50V	M
C1962	QETN1HM-106Z	E CAPACITOR	10uF 50V	M
C1963	QCZ0364-122	C CAPACITOR	1200pF 2kV	K
C1964	QETN1CM-476Z	E CAPACITOR	47uF 16V	M
C1965	QEHR1HM-225Z	E CAPACITOR	2.2uF 50V	M
C1968	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1969	QEHR1CM-227Z	E CAPACITOR	220uF 16V	M
C1972	QETN1CM-476Z	E CAPACITOR	47uF 16V	M
C1973	QETN1CM-107Z	E CAPACITOR	100uF 16V	M
C1974	NCB31CK-104X	C CAPACITOR	0.1uF 16V	K
C1975	QEHR1CM-227Z	E CAPACITOR	220uF 16V	M
C1976	QETN1CM-107Z	E CAPACITOR	100uF 16V	M
C1977	QETN1AM-477Z	E CAPACITOR	470uF 10V	M

⚠Ref No.	Part No.	Part Name	Description	Local
C1978	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C1980	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
⚠C1991	QCZ9079-471	C CAPACITOR	470pF AC250V K	
⚠C1992	QCZ9079-471	C CAPACITOR	470pF AC250V K	
⚠C1993	QCZ9079-102	C CAPACITOR	1000pF AC250V M	
R1001	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1002	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1003	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R1004	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1006	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R1007	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R1101	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R1102	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R1103	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R1104	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J	
R1105	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	
R1106	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1107	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R1108	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1109	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1110	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1111	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1117	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1119	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1120	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1150	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R1151	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1152	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J	
R1153	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R1154	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J	
R1301	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1302	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1303	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R1304	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1305	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1306	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R1350	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R1351	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R1353	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R1354	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J	
R1361	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1363	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K	
R1364	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J	
R1365	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K	
R1368	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K	
R1369	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J	
R1373	QRE121J-394Y	C RESISTOR	390kΩ 1/2W J	
R1374	QRE121J-124Y	C RESISTOR	120kΩ 1/2W J	
R1380	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1381	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1382	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1383	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1384	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R1387	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R1388	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R1390	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1391	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R1397	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1401	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R1403	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1405	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1406	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R1408	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1410	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R1411	QRG01GJ-221	OMF RESISTOR	220Ω 1W J	
R1412	QRE121J-1R0Y	C RESISTOR	1Ω 1/2W J	
R1413	QRX01GJ-2R7	MF RESISTOR	2.7Ω 1W J	
R1414	QRE121J-120Y	C RESISTOR	12Ω 1/2W J	
R1425	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R1521	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1522	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1524	QRL029J-270	OMF RESISTOR	27Ω 2W J	
R1526	QRG01GJ-271	OMF RESISTOR	270Ω 1W J	
R1527	QRL039J-103	OMF RESISTOR	10kΩ 3W J	
R1528	QRX029J-R47	MF RESISTOR	0.47Ω 2W J	
R1529	QRX029J-R47	MF RESISTOR	0.47Ω 2W J	
R1531	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
⚠R1532	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J	
⚠R1540	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J	
R1541	QRE121J-104Y	C RESISTOR	100kΩ 1/2W J	
R1542	QRE121J-224Y	C RESISTOR	220kΩ 1/2W J	
R1543	QRE121J-471Y	C RESISTOR	470Ω 1/2W J	
R1545	QRE121J-220Y	C RESISTOR	22Ω 1/2W J	
R1546	QRE121J-822Y	C RESISTOR	8.2kΩ 1/2W J	
R1591	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J	
R1592	QRZ0225-2R2	UNF RESISTOR	2.2Ω 7W K	

⚠Ref No.	Part No.	Part Name	Description	Local
R1593	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1594	QRE121J-183Y	C RESISTOR	18kΩ 1/2W J	
R1595	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1602	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J	
R1603	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1604	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1623	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R1624	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1625	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1627	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1628	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1650	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1651	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1654	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1655	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1660	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1661	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R1662	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R1663	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1664	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1686	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1687	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1688	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R1690	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1691	QRE121J-2R2Y	C RESISTOR	2.2Ω 1/2W J	
R1692	QRE121J-2R2Y	C RESISTOR	2.2Ω 1/2W J	
R1698	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1699	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1701	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1702	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1703	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1704	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1705	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1706	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1707	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R1708	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R1709	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R1710	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R1711	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1712	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1713	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1714	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1715	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1716	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1717	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1718	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1719	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1720	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1721	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1722	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1723	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1724	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1725	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1726	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R1727	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1728	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1729	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R1730	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R1731	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1732	NRSA02F-393X	MG RESISTOR	39kΩ 1/10W F	
R1733	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R1734	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J	
R1735	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1736	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R1737	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R1738	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1739	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1740	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1741	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1742	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1743	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R1744	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	
R1745	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R1746	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R1747	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1748	NRSA63J-475X	MG RESISTOR	4.7MΩ 1/16W J	
R1749	NRSA63J-475X	MG RESISTOR	4.7MΩ 1/16W J	
R1750	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1755	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1756	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1757	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1758	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1760	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1770	QRE121J-271Y	C RESISTOR	270Ω 1/2W J	
R1771	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1772	QRE121J-271Y	C RESISTOR	270Ω 1/2W J	
R1773	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	

⚠Ref No.	Part No.	Part Name	Description Local
R1775	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R1776	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R1777	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R1779	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R1780	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1781	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R1782	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R1783	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1784	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R1785	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1801	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1802	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1803	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R1804	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1805	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1806	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1807	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1808	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R1809	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R1810	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R1811	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R1812	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1813	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1815	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1817	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1818	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1819	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1820	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1821	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1823	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1824	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1826	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1829	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1830	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1831	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1832	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R1833	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1834	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R1835	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R1836	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1837	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1838	QRK126J-121X	UNF C RESISTOR	120Ω 1/2W J
R1839	QRE121J-221Y	C RESISTOR	220Ω 1/2W J
R1840	QRE121J-221Y	C RESISTOR	220Ω 1/2W J
R1841	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1842	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1843	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J
R1844	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1845	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1846	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1847	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1848	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1849	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1880	NRSA63J-202X	MG RESISTOR	2kΩ 1/16W J
R1881	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1882	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1883	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R1902	QRF154K-2R2	UNF WW RESISTOR	2.2Ω 15W K
R1904	QRE121J-681Y	C RESISTOR	680Ω 1/2W J
R1905	QRM034J-R15	MP RESISTOR	0.15Ω 3W J
R1907	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R1908	QRL039J-333	OMF RESISTOR	33kΩ 3W J
R1909	QRE121J-474Y	C RESISTOR	470kΩ 1/2W J
R1910	QRE121J-472Y	C RESISTOR	4.7kΩ 1/2W J
R1911	QRE121J-332Y	C RESISTOR	3.3kΩ 1/2W J
R1912	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
R1913	QRE121J-3R9Y	C RESISTOR	3.9Ω 1/2W J
⚠R1915	QRZ0107-474Z	C RESISTOR	470kΩ 1/2W K
R1952	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R1953	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1957	QRE121J-6R8Y	C RESISTOR	6.8Ω 1/2W J
R1960	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R1961	QRL029J-223	OMF RESISTOR	22kΩ 2W J
R1962	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R1963	QRE121J-103Y	C RESISTOR	10kΩ 1/2W J
R1964	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R1965	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1966	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1967	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R1970	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R1971	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
R1972	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
⚠R1991	QRZ9046-825Z	C RESISTOR	8.2MΩ 1/2W K
L1002	CE42050-001Z	BEADS CORE	
L1101	QQLZ014-R82	COIL	0.82uH 100mA L
L1104	QQL244J-150Z	PEAKING COIL	15uH
L1351	QQL244J-5R6Z	COIL	5.6uH J
L1523	QQR1005-004	LINEARITY COIL	
L1524	QQLZ034-760	COIL	76uH
L1601	QQL244K-4R7Z	PEAKING COIL	4.7uH K
L1701	QQL244K-100Z	PEAKING COIL	10uH K
L1702	QQL244K-100Z	PEAKING COIL	10uH K
L1731	QQL244J-5R6Z	COIL	5.6uH J
L1732	QQL244J-5R6Z	COIL	5.6uH J
L1951	QQLZ034-460	HEATER CHOKE	46uH
L1953	QQL244J-5R6Z	COIL	5.6uH J
L1954	QQL244J-5R6Z	COIL	5.6uH J
L1955	QQL26AK-560Z	CHOKE COIL	56uH K
T1521	CE40203-00CJ1	DRIVE TRANSF	
⚠T1901	QQS0216-001	SW TRANSF	
⚠PC1901	PC123F2	PHOTO COUPLER	
CF1106	QAX0639-001Z	C TRAP	4.500MHz
CL1001	QZW0027-002	WIRE CLAMP	
CL1002	QZW0028-002	WIRE CLAMP	
⚠CP1951	ICP-N75-Y	IC PROTECTOR	2.7A
⚠CP1953	ICP-N75-Y	IC PROTECTOR	2.7A
⚠F1901	QMF51E2-4R0J4	FUSE	4A AC250V
FC1901	CEMG002-001Z	FUSE CLIP	(x2)
J1770	QNS0155-001	3.5 JACK	HEADPHONE
J1771	QNN0282-003	PIN JACK	VIDEO3 V IN
J1772	QNN0282-002	PIN JACK	VIDEO3 L IN
J1773	QNN0282-001	PIN JACK	VIDEO3 R IN
J1801	QNZ0454-001	AV JACK	VIDEO1 IN
J1802	QNN0349-002	PIN JACK	COMP/VIDEO2 IN
J1803	QNN0348-001	PIN JACK	VIDEO2 L,R IN
J1804	QNN0349-001	PIN JACK	OUTPUT
K1101	QQR1114-001Z	FERRITE BEADS	
K1102	QQR1114-001Z	FERRITE BEADS	
K1103	QQR1113-001Z	FERRITE BEADS	
K1105	QQR1113-001Z	FERRITE BEADS	
K1106	QQR1113-001Z	FERRITE BEADS	
K1108	QQR1114-001Z	FERRITE BEADS	
K1109	QQR1114-001Z	FERRITE BEADS	
K1701	QQR1113-001Z	FERRITE BEADS	
K1702	QQR1114-001Z	FERRITE BEADS	
K1902	QQR1114-001Z	FERRITE BEADS	
K1903	QQR1114-001Z	FERRITE BEADS	
K1951	QQR1113-001Z	FERRITE BEADS	
K1954	QQR1113-001Z	FERRITE BEADS	
K1955	QQR1214-001Y	FERRITE BEADS	
⚠LF1901	QQR0673-004	LINE FILTER	
⚠LF1902	QQR1035-002	LINE FILTER	
⚠RY1901	QSK0092-001	RELAY	
S1780	QSW0619-003Z	TACT SWITCH	MENU
S1781	QSW0619-003Z	TACT SWITCH	CH-
S1782	QSW0619-003Z	TACT SWITCH	CH+
S1783	QSW0619-003Z	TACT SWITCH	VOL-
S1784	QSW0619-003Z	TACT SWITCH	VOL+
⚠S1901	QSW0846-001	PUSH SWITCH	POWER
SF1101	QAX0663-001	SAW FILTER	
SF1102	QAX0731-001	SAW FILTER	
⚠SK1351	QNZ0537-001	CRT SOCKET	
⚠TH1901	QAD0134-4R5	P THERMISTOR	4.5Ω
TU1001	QAU0287-001	TUNER	
⚠VA1901	QAF0052-621	VARISTOR	620V
W1008	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1200	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1201	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1239	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1257	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1258	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1301	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1307	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1309	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1322	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1325	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1330	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1333	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1375	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1379	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1416	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1418	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1428	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1430	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1442	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
X1601	CE42546-001Z	CRYSTAL	
X1701	QAX0737-001	CRYSTAL	12.000MHz
Y1004	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
Y1102	QQR1114-001Z	FERRITE BEADS	
Y1301	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
Y1918	1SS133-T2	SI DIODE	

⚠Ref No.	Part No.	Part Name	Description	Local
	LC30114-001C-H	LED HOLDER		
	CM35921-005-H	CDS HOLDER		

PRINTED WIRING BOARD PARTS LIST [AV-21V531/B]

MAIN P.W. BOARD ASS'Y (SCH-1146A-BK)

⚠Ref No.	Part No.	Part Name	Description	Local
IC1351	TDA6107JF/N3S30	IC		
IC1401	AN5522	IC		
IC1601	MSP3417GQGB8V3X	IC		
IC1602	NJW1136GL1-W	IC		
IC1650	AN7585	IC		
IC1701	TDA9386N23I1237	IC (MCU)		
IC1702	AT24WC08-21VS21	IC	(SERVICE)	
IC1760	GP1UM281QK	IR DETECT UNIT	38kHz	
IC1801	MM1492AF	IC		
IC1901	STR-F6709A/F7	IC		
IC1951	SE135N	IC		
IC1972	R1141Q331B-X	IC		
IC1974	AN80T36	IC		
Q1101	2SC5083/L-P/-T	TRANSISTOR		
Q1102	UN2212-X	DIGI TRANSISTOR		
Q1103	UN2212-X	DIGI TRANSISTOR		
Q1104	2SA1530A/QR/-X	TRANSISTOR		
Q1105	UN2212-X	DIGI TRANSISTOR		
Q1106	UN2212-X	DIGI TRANSISTOR		
Q1108	2SC3928A/QR/-X	TRANSISTOR		
Q1109	2SA1530A/QR/-X	TRANSISTOR		
Q1110	UN2212-X	DIGI TRANSISTOR		
Q1111	2SC3928A/QR/-X	TRANSISTOR		
Q1150	2SC3928A/QR/-X	TRANSISTOR		
Q1301	2SA1530A/QR/-X	TRANSISTOR		
Q1302	2SA1530A/QR/-X	TRANSISTOR		
Q1351	2SA1530A/QR/-X	TRANSISTOR		
Q1353	2SC3928A/QR/-X	TRANSISTOR		
Q1354	2SC3928A/QR/-X	TRANSISTOR		
Q1355	2SC3928A/QR/-X	TRANSISTOR		
Q1356	2SA1530A/QR/-X	TRANSISTOR		
Q1521	2SC2655/Y/-T	TRANSISTOR		
⚠Q1522	2SD2634-YD	TRANSISTOR	H OUT	
Q1591	2SA1208/ST/Z1-T	TRANSISTOR		
Q1592	UN2212-X	DIGI TRANSISTOR		
Q1650	DTC323TK-X	DIGI TRANSISTOR		
Q1651	UN2212-X	DIGI TRANSISTOR		
Q1660	2SC3928A/QR/-X	TRANSISTOR		
Q1661	2SC3928A/QR/-X	TRANSISTOR		
Q1683	2SA1530A/QR/-X	TRANSISTOR		
Q1684	2SA1530A/QR/-X	TRANSISTOR		
Q1685	DTC323TK-X	DIGI TRANSISTOR		
Q1686	DTC323TK-X	DIGI TRANSISTOR		
Q1701	2SA1530A/QR/-X	TRANSISTOR		
Q1702	2SA1530A/QR/-X	TRANSISTOR		
Q1703	FMC2A-X	D.TRANSISTOR		
Q1720	2SA1530A/QR/-X	TRANSISTOR		
Q1770	2SA1530A/QR/-X	TRANSISTOR		
Q1801	DTC323TK-X	DIGI TRANSISTOR		
Q1802	DTC323TK-X	DIGI TRANSISTOR		
Q1803	2SA1530A/QR/-X	TRANSISTOR		
Q1804	KTC3199/YG/-T	TRANSISTOR		
Q1860	2SC3928A/QR/-X	TRANSISTOR		
Q1861	2SA1530A/QR/-X	TRANSISTOR		
Q1862	2SA1530A/QR/-X	TRANSISTOR		
Q1952	2SC3928A/QR/-X	TRANSISTOR		
Q1953	2SC3928A/QR/-X	TRANSISTOR		
Q1954	2SC3928A/QR/-X	TRANSISTOR		
D1101	1SS268-X	SI DIODE		
D1351	MA111-X	SI DIODE		
D1356	MA111-X	SI DIODE		
D1357	RGP10J-5025-T3	SI DIODE		
D1358	RGP10J-5025-T3	SI DIODE		
D1359	RGP10J-5025-T3	SI DIODE		
D1360	MA3075/M/-X	Z DIODE		
D1361	MA111-X	SI DIODE		
D1362	MA111-X	SI DIODE		
D1363	MA111-X	SI DIODE		
D1364	MA111-X	SI DIODE		
D1367	MA111-X	SI DIODE		
D1370	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
D1401	RGP10J-5025-T3	SI DIODE		
D1402	MTZJ75-T2	Z DIODE		
D1405	1N4003-T2	SI DIODE		
D1408	MA111-X	SI DIODE		
D1521	ERB06-15-F1	SI DIODE		
D1522	RU3AM-LFC4	SI DIODE		
D1523	RGP10J-5025-T3	SI DIODE		
D1541	RGP10J-5025-T3	SI DIODE		
D1550	MA111-X	SI DIODE		

⚠Ref No.	Part No.	Part Name	Description	Local
D1551	RGP10J-5025-T3	SI DIODE		
D1553	RGP10J-5025-T3	SI DIODE		
D1554	RGP10J-5025-T3	SI DIODE		
D1592	MA3075/H/-X	Z DIODE		
D1651	MA3330/L/-X	Z DIODE		
D1652	MA3330/L/-X	Z DIODE		
D1653	MA3330/L/-X	Z DIODE		
D1654	MA111-X	SI DIODE		
D1655	MA111-X	SI DIODE		
D1682	MA111-X	SI DIODE		
D1702	MA3024-X	Z DIODE		
D1703	MA3051/M/-X	Z DIODE		
D1704	MA3033-X	Z DIODE		
D1730	MA111-X	SI DIODE		
D1731	MA111-X	SI DIODE		
D1732	MA111-X	SI DIODE		
D1733	MA111-X	SI DIODE		
D1760	LH22440-T16	LED	POWER	
D1770	MA111-X	SI DIODE		
D1771	P1241-04	PHOTO CONDUCTOR		
D1801	MA3120/M/-X	Z DIODE		
D1802	MA3120/M/-X	Z DIODE		
D1807	MA3100/M/-X	Z DIODE		
D1808	MA3100/M/-X	Z DIODE		
D1819	MA3100/M/-X	Z DIODE		
D1820	MA3100/M/-X	Z DIODE		
D1901	GSIB460	BRIDGE DIODE		
D1903	MTZJ12C-T2	Z DIODE		
D1904	EG01C-T2	SI DIODE		
D1906	EG01C-T2	SI DIODE		
D1907	MA3150/M/-X	Z DIODE		
D1908	MTZJ27B-T2	Z DIODE		
D1909	MA111-X	SI DIODE		
D1910	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
D1911	RGP10J-TS-T3	SI DIODE		
D1912	1SS133-T2	SI DIODE		
D1914	ERC30-02L38	SI DIODE		
D1952	FSF05A20	SI DIODE		
D1954	RGP30B-F1	SI DIODE		
D1956	RU3AM-LFC4	SI DIODE		
D1957	MA111-X	SI DIODE		
D1964	MA3330/L/-X	Z DIODE		
D1965	1SS133-T2	SI DIODE		
D1966	MA3068/M/-X	Z DIODE		
D1968	MA111-X	SI DIODE		
D1969	MA111-X	SI DIODE		
D1971	MA111-X	SI DIODE		
C1001	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1002	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1003	QFV71HJ-104Z	MF CAPACITOR	0.1uF 50V J	
C1004	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C1005	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1006	QETN1CM-336Z	E CAPACITOR	33uF 16V M	
C1007	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1101	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C1102	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C1103	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C1104	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C1105	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C1106	NDC31HJ-180X	C CAPACITOR	18pF 50V J	
C1107	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1108	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C1109	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1150	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C1151	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C1308	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1310	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C1352	QFKC2EK-104Z	MM CAPACITOR	0.1uF 250V K	
C1353	QETN2EM-475Z	E CAPACITOR	4.7uF 250V M	
C1355	QCZ0131-821	C CAPACITOR	820pF 2kV K	
C1356	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C1357	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C1358	QETN1CM-476Z	E CAPACITOR	47uF 16V M	
C1361	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C1401	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C1402	QCB31HK-682Z	C CAPACITOR	6800pF 50V K	
C1403	QEHR1VM-227Z	E CAPACITOR	220uF 35V M	
C1406	QFLC2AJ-683Z	M CAPACITOR	0.068uF 100V J	
C1407	QCS32HJ-180Z	C CAPACITOR	18pF 500V J	
C1408	QFV71HJ-184Z	MF CAPACITOR	0.18uF 50V J	
C1411	NCF21HZ-334X	C CAPACITOR	0.33uF 50V Z	
C1412	NCF21HZ-334X	C CAPACITOR	0.33uF 50V Z	
C1413	QFLC2AJ-563Z	M CAPACITOR	0.056uF 100V J	

⚠Ref No.	Part No.	Part Name	Description	Local
C1422	QEHQ1VM-108	E CAPACITOR	1000uF 35V M	
C1521	QETN1VM-476Z	E CAPACITOR	47uF 35V M	
C1522	QFLC1HJ-332Z	M CAPACITOR	3300pF 50V J	
C1523	QFLC1HJ-223Z	M CAPACITOR	0.022uF 50V J	
⚠C1524	QFZ0196-432	MPP CAPACITOR	4300pF 1.5kV H	
C1525	QFZ0196-502	MPP CAPACITOR	5000pF 1.5kV H	
C1526	QFP32GJ-393	PP CAPACITOR	0.039uF 400V J	
C1527	QFZ0197-124	MPP CAPACITOR	0.12uF 250V J	
C1528	QFZ0197-124	MPP CAPACITOR	0.12uF 250V J	
C1529	QEHR2EM-475Z	E CAPACITOR	4.7uF 250V M	
C1530	QCB32HK-561Z	C CAPACITOR	560pF 500V K	
C1531	QEHR1EM-108Z	E CAPACITOR	1000uF 25V M	
C1533	QEHR1EM-108Z	E CAPACITOR	1000uF 25V M	
C1535	QCB32HK-101Z	C CAPACITOR	100pF 500V K	
C1536	QFLC1HJ-103Z	M CAPACITOR	0.01uF 50V J	
C1540	QFV71HJ-104Z	MF CAPACITOR	0.1uF 50V J	
C1541	QETN2EM-106Z	E CAPACITOR	10uF 250V M	
C1542	QETN2EM-226Z	E CAPACITOR	22uF 250V M	
C1550	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1591	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C1592	QEZ0203-107	E CAPACITOR	100uF 160V M	
C1593	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C1602	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1603	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1604	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C1606	NDC31HJ-2R0X	C CAPACITOR	2pF 50V J	
C1607	NDC31HJ-2R0X	C CAPACITOR	2pF 50V J	
C1608	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1609	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1610	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1611	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1612	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1613	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1615	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1616	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1617	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1619	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1620	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1621	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C1622	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C1625	NCF21EZ-474X	C CAPACITOR	0.47uF 25V Z	
C1626	NCB31HK-333X	C CAPACITOR	0.033uF 50V K	
C1627	NCB31HK-473X	C CAPACITOR	0.047uF 50V K	
C1628	NCB21HK-823X	C CAPACITOR	0.082uF 50V K	
C1629	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1630	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C1631	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C1632	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C1633	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C1634	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C1635	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C1636	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C1637	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C1638	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C1639	QETN1HM-107Z	E CAPACITOR	100uF 50V M	
C1640	NCF21HZ-334X	C CAPACITOR	0.33uF 50V Z	
C1641	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C1642	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1643	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C1644	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1645	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C1646	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C1647	NCF21EZ-474X	C CAPACITOR	0.47uF 25V Z	
C1650	QEHR1HM-106Z	E CAPACITOR	10uF 50V M	
C1651	QEHR1HM-107Z	E CAPACITOR	100uF 50V M	
C1652	QEHR1HM-106Z	E CAPACITOR	10uF 50V M	
C1654	QEHQ1VM-228	E CAPACITOR	2200uF 35V M	
C1655	QETM1VM-108	E CAPACITOR	1000uF 35V M	
C1656	QETM1VM-108	E CAPACITOR	1000uF 35V M	
C1657	QEHR1HM-106Z	E CAPACITOR	10uF 50V M	
C1662	QEHR1VM-227Z	E CAPACITOR	220uF 35V M	
C1663	NCF21HZ-224X	C CAPACITOR	0.22uF 50V Z	
C1664	NCF21HZ-224X	C CAPACITOR	0.22uF 50V Z	
C1665	NCF21HZ-224X	C CAPACITOR	0.22uF 50V Z	
C1666	NCF21HZ-224X	C CAPACITOR	0.22uF 50V Z	
C1681	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C1682	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C1683	QETN1CM-336Z	E CAPACITOR	33uF 16V M	
C1684	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1701	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C1702	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1703	NDC31HJ-330X	C CAPACITOR	33pF 50V J	
C1704	NDC31HJ-330X	C CAPACITOR	33pF 50V J	
C1706	NCB21EK-224X	C CAPACITOR	0.22uF 25V K	
C1707	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1709	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1710	NCB21EK-224X	C CAPACITOR	0.22uF 25V K	
C1711	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1713	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1714	QETN1CM-476Z	E CAPACITOR	47uF 16V M	
C1720	QETN1CM-476Z	E CAPACITOR	47uF 16V M	
C1725	NCB31HK-681X	C CAPACITOR	680pF 50V K	
C1730	NCB21EK-224X	C CAPACITOR	0.22uF 25V K	
C1731	NCB21EK-224X	C CAPACITOR	0.22uF 25V K	
C1732	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1733	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1734	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1735	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C1736	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C1737	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C1738	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1739	NFV91CJ-104X	MPPS CAPACITOR	0.1uF 16V J	
C1740	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C1741	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1742	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1743	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1744	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C1745	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
C1746	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
C1747	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
C1748	QETN1CM-476Z	E CAPACITOR	47uF 16V M	
C1749	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1751	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1752	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1753	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1760	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C1761	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1770	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1801	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1802	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1803	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1804	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1805	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C1806	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C1807	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C1808	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C1809	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1810	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C1811	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C1812	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C1813	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1814	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C1815	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C1817	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C1819	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C1820	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C1821	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C1822	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C1823	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1824	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1825	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1826	NCB31HK-104X	C CAPACITOR	0.1uF 50V K	
C1827	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1829	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1830	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1831	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1833	QETN1HM-226Z	E CAPACITOR	22uF 50V M	
C1834	NDC31HJ-181X	C CAPACITOR	180pF 50V J	
⚠C1901	QFZ9077-104	MPP CAPACITOR	0.1uF AC250V M	
⚠C1902	QFZ9072-473	MM CAPACITOR	0.047uF AC250V K	
C1903	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z	
C1904	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z	
C1905	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z	
⚠C1906	QFZ9072-224	MM CAPACITOR	0.22uF AC250V K	
C1907	QEZ0649-337	E CAPACITOR	330uF 400V M	
C1908	QFZ0209-272	C CAPACITOR	2700pF 6A H	
C1910	NDC31HJ-471X	C CAPACITOR	470pF 50V J	
C1911	QEHR1EM-227Z	E CAPACITOR	220uF 25V M	
C1914	QETN1EM-227Z	E CAPACITOR	220uF 25V M	
C1915	QFLC1HJ-122Z	M CAPACITOR	1200pF 50V J	
C1952	QCB32HK-471Z	C CAPACITOR	470pF 500V K	
C1953	QEHQ1VM-228	E CAPACITOR	2200uF 35V M	
C1954	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C1957	QCB32HK-471Z	C CAPACITOR	470pF 500V K	
C1958	QEHQ1EM-228	E CAPACITOR	2200uF 25V M	
C1959	QCZ0364-561	C CAPACITOR	560pF 2kV K	
C1960	QEZ0203-227	E CAPACITOR	220uF 160V M	
C1961	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C1962	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1963	QCZ0364-122	C CAPACITOR	1200pF 2kV K	
C1964	QETN1CM-476Z	E CAPACITOR	47uF 16V M	
C1965	QEHR1HM-225Z	E CAPACITOR	2.2uF 50V M	
C1968	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1969	QEHR1CM-227Z	E CAPACITOR	220uF 16V M	

⚠Ref No.	Part No.	Part Name	Description Local
C1972	QETN1CM-108Z	E CAPACITOR	1000uF 16V M
C1973	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C1974	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C1975	QEHR1CM-227Z	E CAPACITOR	220uF 16V M
C1976	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C1977	QETN1AM-477Z	E CAPACITOR	470uF 10V M
C1978	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C1980	QETN1CM-107Z	E CAPACITOR	100uF 16V M
⚠C1991	QCZ9079-471	C CAPACITOR	470pF AC250V K
⚠C1992	QCZ9079-471	C CAPACITOR	470pF AC250V K
⚠C1993	QCZ9079-102	C CAPACITOR	1000pF AC250V M
R1001	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1002	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1003	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R1004	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1006	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R1007	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1101	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R1102	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1103	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R1104	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R1105	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J
R1106	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1107	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1108	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1109	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1110	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1111	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1117	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1119	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1120	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1150	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R1151	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1152	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J
R1153	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R1154	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R1301	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1302	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1303	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R1304	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1305	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1306	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R1350	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R1351	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R1353	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R1354	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R1361	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1363	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K
R1364	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R1365	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K
R1368	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K
R1369	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R1373	QRE121J-394Y	C RESISTOR	390kΩ 1/2W J
R1374	QRE121J-124Y	C RESISTOR	120kΩ 1/2W J
R1380	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1381	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1382	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1383	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1384	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R1387	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R1388	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R1390	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1391	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J
R1397	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1401	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R1403	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1405	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1406	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R1408	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1410	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R1411	QRG01GJ-221	OMF RESISTOR	220Ω 1W J
R1412	QRE121J-1R0Y	C RESISTOR	1Ω 1/2W J
R1413	QRX01GJ-2R7	MF RESISTOR	2.7Ω 1W J
R1414	QRE121J-6R8Y	C RESISTOR	6.8Ω 1/2W J
R1425	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R1521	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1522	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1524	QRL029J-270	OMF RESISTOR	27Ω 2W J
R1526	QRG01GJ-271	OMF RESISTOR	270Ω 1W J
R1527	QRL039J-103	OMF RESISTOR	10kΩ 3W J
R1528	QRX029J-R47	MF RESISTOR	0.47Ω 2W J
R1529	QRX029J-R47	MF RESISTOR	0.47Ω 2W J
R1531	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
⚠R1532	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J
⚠R1540	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J
R1541	QRE121J-154Y	C RESISTOR	150kΩ 1/2W J
R1542	QRE121J-154Y	C RESISTOR	150kΩ 1/2W J
R1543	QRE121J-471Y	C RESISTOR	470Ω 1/2W J
R1545	QRE121J-220Y	C RESISTOR	22Ω 1/2W J
R1546	QRE121J-822Y	C RESISTOR	8.2kΩ 1/2W J
R1591	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R1592	QRZ0225-2R2	UNF RESISTOR	2.2Ω 7W K
R1593	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1594	QRE121J-183Y	C RESISTOR	18kΩ 1/2W J
R1595	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1602	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J
R1603	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1604	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1623	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R1624	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1625	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1627	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1628	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1650	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1651	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R1652	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1653	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R1654	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1655	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R1656	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R1657	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R1658	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R1660	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1661	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J
R1662	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R1663	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1664	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1686	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1687	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1688	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R1690	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1691	QRE121J-2R2Y	C RESISTOR	2.2Ω 1/2W J
R1692	QRE121J-2R2Y	C RESISTOR	2.2Ω 1/2W J
R1697	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1698	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1699	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1701	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1702	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1703	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1704	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1705	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1706	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1707	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1708	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1709	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1710	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1711	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1712	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1713	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1714	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1715	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1716	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1717	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1718	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1719	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1720	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1721	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1722	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1723	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1724	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1725	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1726	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R1727	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1728	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1729	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R1730	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R1731	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1732	NRSA02F-393X	MG RESISTOR	39kΩ 1/10W F
R1733	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R1734	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R1735	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1736	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R1737	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R1738	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1739	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1740	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1741	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1742	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1743	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R1744	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R1745	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J
R1746	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R1747	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J

⚠Ref No.	Part No.	Part Name	Description Local
R1748	NRSA63J-475X	MG RESISTOR	4.7MΩ 1/16W J
R1749	NRSA63J-475X	MG RESISTOR	4.7MΩ 1/16W J
R1750	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1755	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1756	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1757	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1758	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1760	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1770	QRE121J-271Y	C RESISTOR	270Ω 1/2W J
R1771	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1772	QRE121J-271Y	C RESISTOR	270Ω 1/2W J
R1773	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1775	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R1776	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R1777	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R1779	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R1780	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1781	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R1782	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R1783	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1784	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R1785	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1801	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1802	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1803	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R1804	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1805	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1806	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1807	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1808	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R1809	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R1810	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R1811	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R1812	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R1813	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1815	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1817	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1818	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1819	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1820	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1821	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1823	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1824	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1826	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1829	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1830	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1831	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1832	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R1833	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1834	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R1835	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R1836	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R1837	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1838	QRK126J-121X	UNF C RESISTOR	120Ω 1/2W J
R1839	QRE121J-221Y	C RESISTOR	220Ω 1/2W J
R1840	QRE121J-221Y	C RESISTOR	220Ω 1/2W J
R1841	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1842	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1843	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J
R1844	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1845	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R1846	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R1847	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1848	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1849	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R1880	NRSA63J-202X	MG RESISTOR	2kΩ 1/16W J
R1881	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R1882	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R1883	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R1902	QRF154K-2R2	UNF WW RESISTOR	2.2Ω 15W K
R1904	QRE121J-681Y	C RESISTOR	680Ω 1/2W J
R1905	QRM034J-R15	MP RESISTOR	0.15Ω 3W J
R1906	QRT029J-1R0	MF RESISTOR	1Ω 2W J
R1907	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R1908	QRL039J-333	OMF RESISTOR	33kΩ 3W J
R1909	QRE121J-274Y	C RESISTOR	270kΩ 1/2W J
R1910	QRE121J-822Y	C RESISTOR	8.2kΩ 1/2W J
R1911	QRE121J-562Y	C RESISTOR	5.6kΩ 1/2W J
R1912	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
R1913	QRE121J-1R2Y	C RESISTOR	1.2Ω 1/2W J
⚠R1915	QRZ0107-474Z	C RESISTOR	470kΩ 1/2W K
R1916	QRE121J-224Y	C RESISTOR	220kΩ 1/2W J
R1952	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R1953	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R1957	QRE121J-6R8Y	C RESISTOR	6.8Ω 1/2W J
R1960	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R1961	QRL029J-223	OMF RESISTOR	22kΩ 2W J
R1962	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R1963	QRE121J-103Y	C RESISTOR	10kΩ 1/2W J
R1964	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R1965	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R1966	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R1967	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R1970	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R1971	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
R1972	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
⚠R1991	QRZ9046-825Z	C RESISTOR	8.2MΩ 1/2W K
L1002	CE42050-001Z	BEADS CORE	
L1101	QQLZ014-R82	COIL	0.82uH 100mA L
L1104	QQL244J-150Z	PEAKING COIL	15uH
L1351	QQL244J-5R6Z	COIL	5.6uH J
L1523	QQR1005-004	LINEARITY COIL	
L1524	QQLZ034-860	COIL	86uH
L1601	QQL244K-4R7Z	PEAKING COIL	4.7uH K
L1701	QQL244K-100Z	PEAKING COIL	10uH K
L1702	QQL244K-100Z	PEAKING COIL	10uH K
L1731	QQL244J-5R6Z	COIL	5.6uH J
L1732	QQL244J-5R6Z	COIL	5.6uH J
L1951	QQLZ034-460	COIL	46uH
L1953	QQL244J-5R6Z	COIL	5.6uH J
L1954	QQL244J-5R6Z	COIL	5.6uH J
L1955	QQL26AK-560Z	CHOKE COIL	56uH K
T1521	CE40203-00CJ1	DRIVE TRANSF	
⚠T1901	QQS0217-001	SW TRANSF	
⚠PC1901	PC123F2	PHOTO COUPLER	
CF1106	QAX0639-001Z	C TRAP	4.500MHz
CL1001	QZW0027-002	WIRE CLAMP	
CL1002	QZW0028-002	WIRE CLAMP	
⚠CP1951	ICP-N75-Y	IC PROTECTOR	2.7A
⚠CP1953	ICP-N75-Y	IC PROTECTOR	2.7A
⚠F1901	QMF51E2-4R0J4	FUSE	4A AC250V
FC1901	CEMG002-001Z	FUSE CLIP	(x2)
J1770	QNS0155-001	3.5 JACK	HEADPHONE
J1771	QNN0282-003	PIN JACK	VIDEO3 V IN
J1772	QNN0282-002	PIN JACK	VIDEO3 L IN
J1773	QNN0282-001	PIN JACK	VIDEO3 R IN
J1774	QNS0100-001	3.5 JACK	BASS SPEAKER OUT
J1801	QNZ0454-001	AV JACK	VIDEO1 IN
J1802	QNN0349-002	PIN JACK	COMP/VIDEO2 IN
J1803	QNN0348-001	PIN JACK	VIDEO2 L,R IN
J1804	QNN0349-001	PIN JACK	OUTPUT
K1101	QQR1114-001Z	FERRITE BEADS	
K1102	QQR1114-001Z	FERRITE BEADS	
K1103	QQR1113-001Z	FERRITE BEADS	
K1105	QQR1113-001Z	FERRITE BEADS	
K1106	QQR1113-001Z	FERRITE BEADS	
K1108	QQR1114-001Z	FERRITE BEADS	
K1109	QQR1114-001Z	FERRITE BEADS	
K1701	QQR1113-001Z	FERRITE BEADS	
K1702	QQR1114-001Z	FERRITE BEADS	
K1901	QQR1113-001Z	FERRITE BEADS	
K1902	QQR1114-001Z	FERRITE BEADS	
K1903	QQR1114-001Z	FERRITE BEADS	
K1951	QQR1113-001Z	FERRITE BEADS	
K1954	QQR1113-001Z	FERRITE BEADS	
K1955	QQR1214-001Y	FERRITE BEADS	
⚠LF1901	QQR0673-004	LINE FILTER	
⚠LF1902	QQR1035-002	LINE FILTER	
⚠RY1901	QSK0092-001	RELAY	
S1780	QSW0619-003Z	TACT SWITCH	MENU
S1781	QSW0619-003Z	TACT SWITCH	CH-
S1782	QSW0619-003Z	TACT SWITCH	CH+
S1783	QSW0619-003Z	TACT SWITCH	VOL-
S1784	QSW0619-003Z	TACT SWITCH	VOL+
⚠S1901	QSW0846-001	PUSH SWITCH	POWER
SF1101	QAX0663-001	SAW FILTER	
SF1102	QAX0731-001	SAW FILTER	
⚠SK1351	QNZ0537-001	CRT SOCKET	
⚠TH1901	QAD0134-4R5	P THERMISTOR	4.5Ω
TU1001	QAU0287-001	TUNER	
⚠VA1901	QAF0052-621	VARISTOR	620V
W1008	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1200	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1201	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1239	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1257	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1258	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1301	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1307	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1309	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
W1322	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J

⚠Ref No.	Part No.	Part Name	Description	Local
W1325	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W1330	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W1333	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W1375	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W1379	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W1416	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W1418	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W1428	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W1430	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W1442	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
X1601	CE42546-001Z	CRYSTAL		
X1701	QAX0737-001	CRYSTAL	12.000MHz	
Y1004	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1102	QQR1114-001Z	FERRITE BEADS		
Y1301	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1918	1SS133-T2	SI DIODE		
	LC30114-001C-H	LED HOLDER		
	CM35921-005-H	CDS HOLDER		

REMOTE CONTROL UNIT PARTS LIST (RM-C1305-1H) [AV-21V311/B]

⚠Ref No.	Part No.	Part Name	Description	Local
	R25-8173	BATTERY COVER		

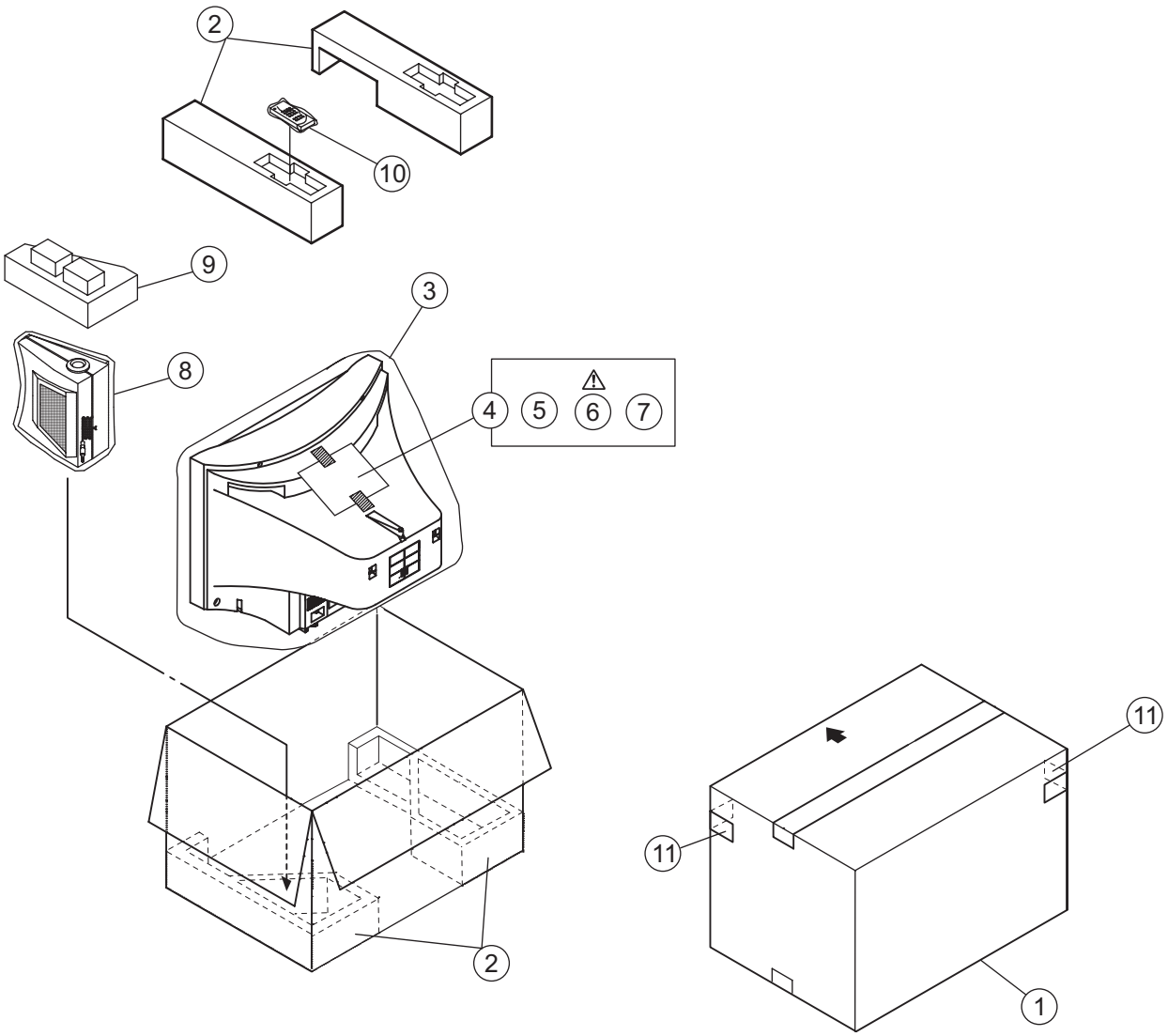
REMOTE CONTROL UNIT PARTS LIST (RM-C1303-1H) [AV-21V511/B]

⚠Ref No.	Part No.	Part Name	Description	Local
	R25-8173	BATTERY COVER		

REMOTE CONTROL UNIT PARTS LIST (RM-C1307-1H) [AV-21V531/B]

⚠Ref No.	Part No.	Part Name	Description	Local
	R25-8173	BATTERY COVER		

PACKING



PACKING PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	GG10044-062A-H	PACKING CASE		AV-21V311/B,AV-21V511/B
	1	GG10044-063A-H	PACKING CASE		AV-21V531/B
	2	GG10188-001C-H	CUSHION ASS'Y	4pcs in 1set	
	3	CP30967-003-H	POLY BAG		
	4	CP30966-001-H	POLY BAG		
	5	----------	BATTERY	AA/R6 (x2)	
⚠	6	GGT0015-001B-H	INST BOOK		
	7	ATEAB001-00A	MATCHING BOX		
	8	CP30967-007-H	POLY BAG		AV-21V531/B
	9	GG10142-001B-H	BASS TOP CUSHIO		AV-21V531/B
	10	RM-C1305-1H	REMOCON UNIT		AV-21V311/B
	10	RM-C1303-1H	REMOCON UNIT		AV-21V511/B
	10	RM-C1307-1H	REMOCON UNIT		AV-21V531/B
	11	GG20025-003A-H	CORNER LABEL	(x2)	

JVC

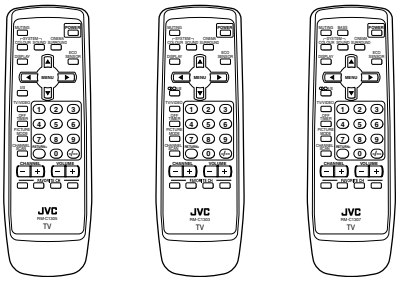
SCHEMATIC DIAGRAMS

FLAT COLOUR TELEVISION

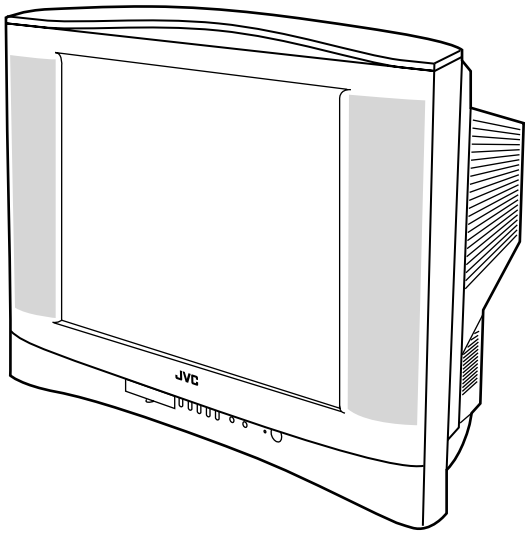
BASIC CHASSIS
CH3

AV-21V311 /B
AV-21V511 /B
AV-21V531 /B

CD-ROM No. SML200310



RM-C1305-1H [AV-21V311/B] **RM-C1303-1H [AV-21V511/B]** **RM-C1307-1H [AV-21V531/B]**



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No.52176
2003/9

AV-21V311/B, AV-21V511/B, AV-21V531/B
STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1. SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2. SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1) Input signal : Colour bar signal
(2) Setting positions of each knob/button and variable resistor : Original setting position when shipped
(3) Internal resistance of tester : DC 20kΩ/V
(4) Oscilloscope sweeping time : H ⇒ 20μs/div
: V ⇒ 5ms/div
: Others ⇒ Sweeping time is specified
(5) Voltage values : All DC voltage values

∗Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3. INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board : R1209 → R209

4. INDICATIONS ON THE CIRCUIT DIAGRAM

(1) Resistors

● Resistance value

No unit	: [Ω]
k	: [kΩ]
M	: [MΩ]

● Rated allowable power

No indication	: 1/16 [W]
Others	: As specified

● Type

No indication	: Carbon resistor
OMR	: Oxide metal film resistor
MFR	: Metal film resistor
MPR	: Metal plate resistor
UNFR	: Uninflammable resistor
FR	: Fusible resistor

∗Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2) Capacitors

● Capacitance value

1 or higher	: [pF]
less than 1	: [μF]

● Withstand voltage

No indication	: DC50[V]
AC indicated	: AC withstand voltage [V]
Others	: DC withstand voltage [V]

∗Electrolytic Capacitors
47/50[Example] : Capacitance value [μF]/withstand voltage[V]

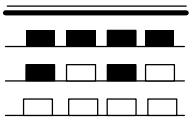
● Type

No indication	: Ceramic capacitor
MY	: Mylar capacitor
MM	: Metalized mylar capacitor
PP	: Polypropylene capacitor
MPP	: Metalized polypropylene capacitor
MF	: Metalized film capacitor
TF	: Thin film capacitor
BP	: Bipolar electrolytic capacitor
TAN	: Tantalum capacitor

(3) Coils

No unit	: [μH]
Others	: As specified

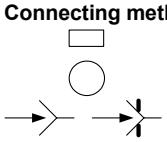
(4) Power Supply



∗Respective voltage values are indicated

(5) Test point

(6) Connecting method



(7) Ground symbol

⊥ : LIVE side ground
⏥ : ISOLATED(NEUTRAL) side ground
⏚ : EARTH ground
▽ : DIGITAL ground

5. NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏥) side GND. Therefore, care must be taken for the following points.

(1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
(2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time with a measuring apparatus (oscilloscope, etc.). If the above precaution is not respected, a fuse or any parts will be broken.

◆ **Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

NOTE

◆ **Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.**
When ordering parts, please use the numbers that appear in the Parts List.

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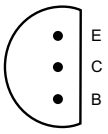
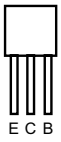
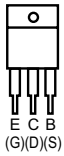
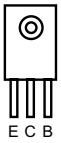
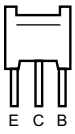
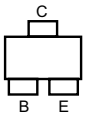
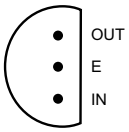
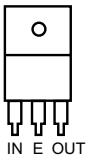
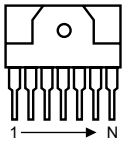
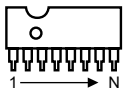
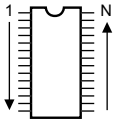
SEMICONDUCTOR SHAPES

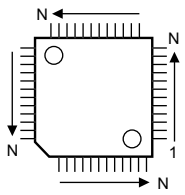
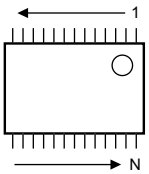
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

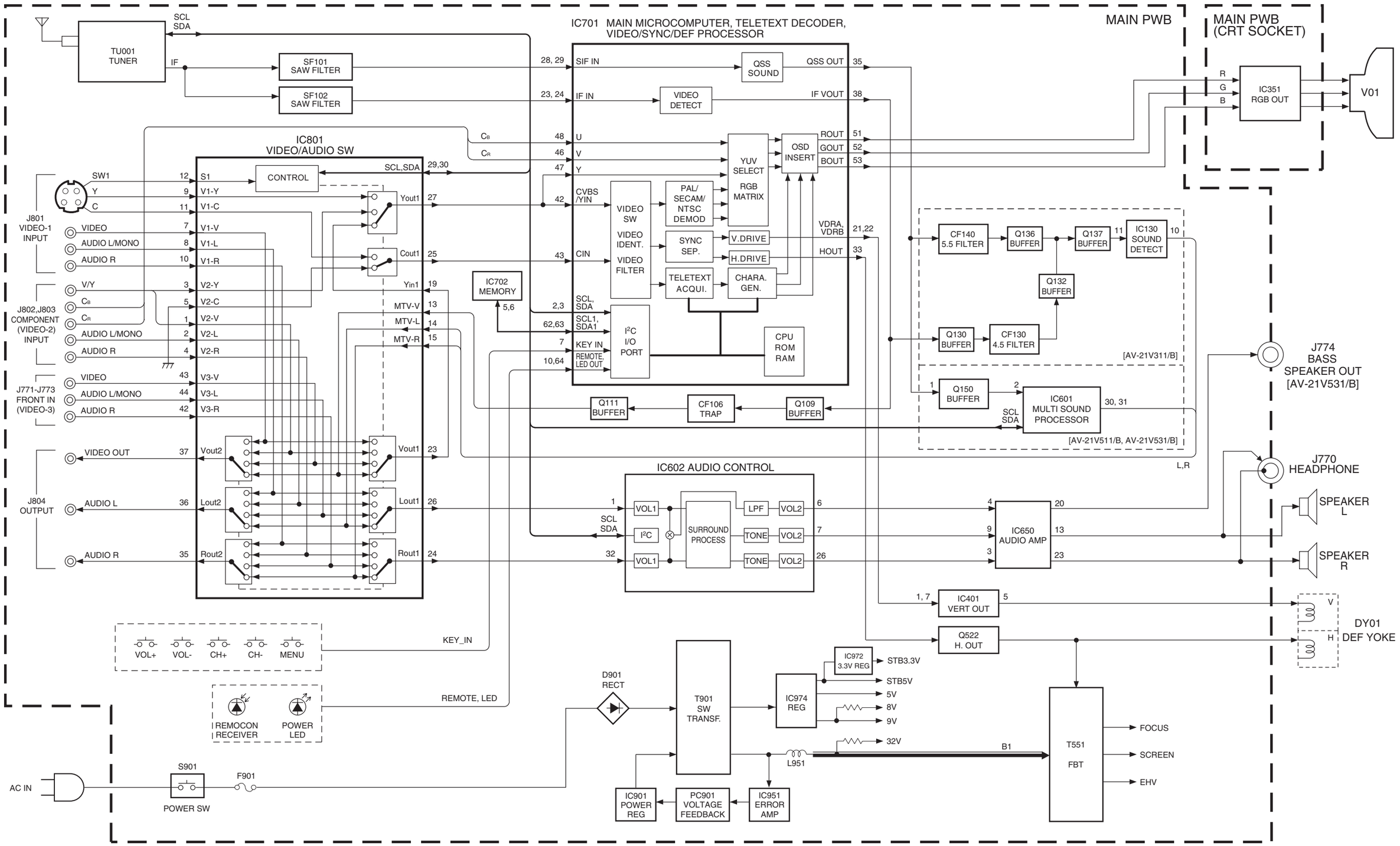
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

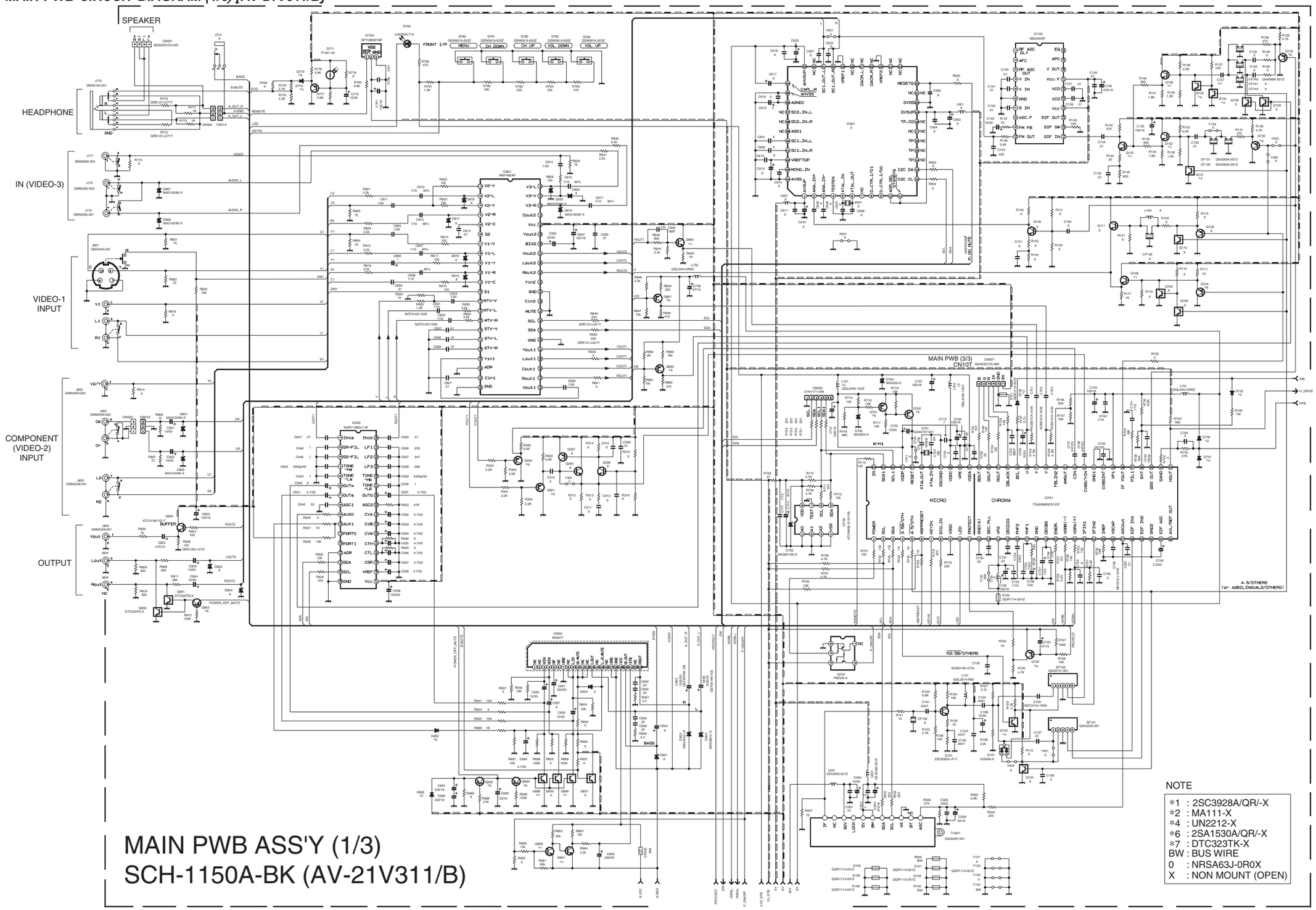
TOP VIEW		
		

BLOCK DIAGRAM



CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM (1/3) [AV-21V311/B]



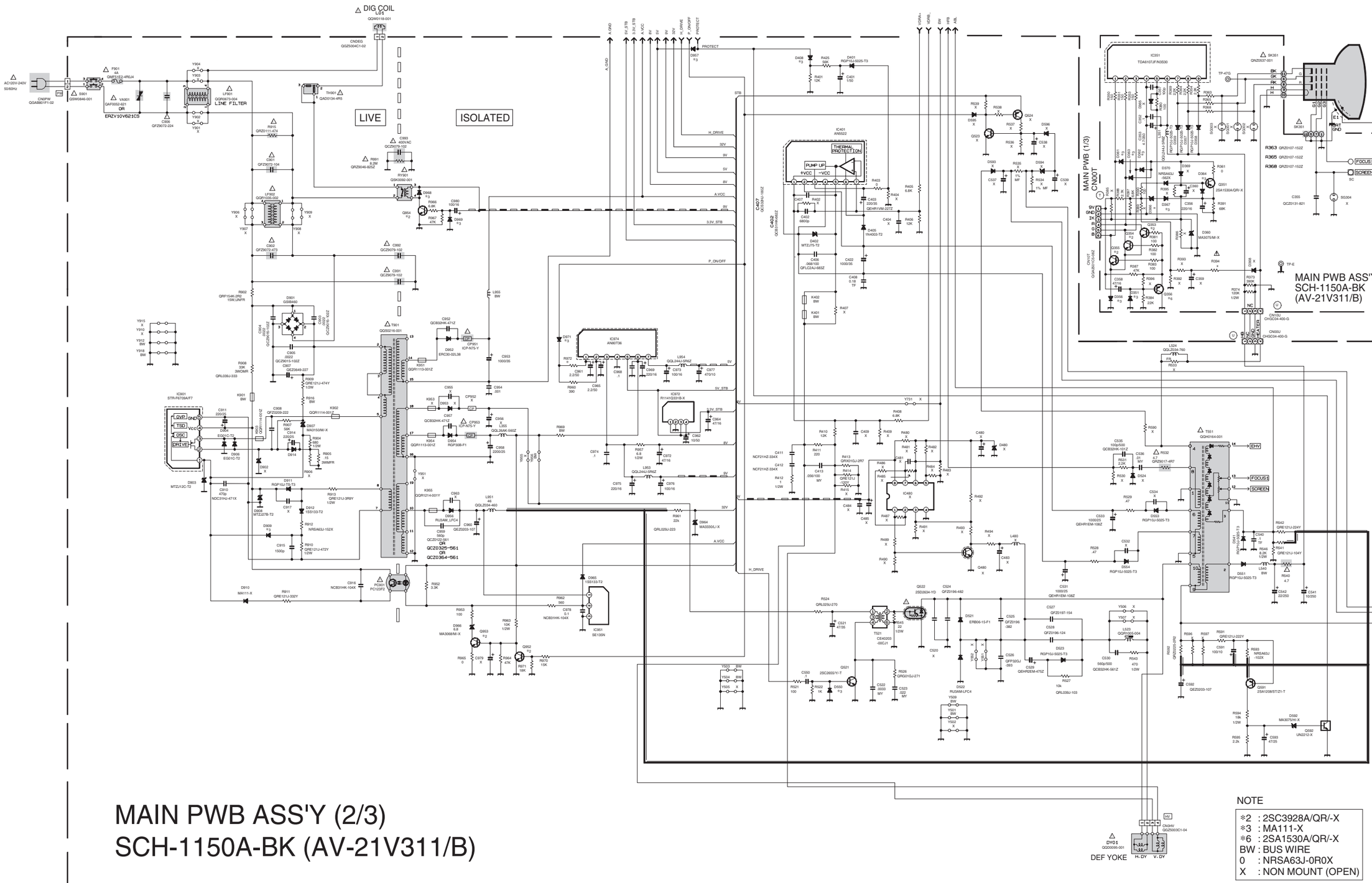
MAIN PWB ASS'Y (1/3)
SCH-1150A-BK (AV-21V311/B)

NOTE

※1	: 2SC3928A/QR/-X
※2	: MA111-X
※4	: UN2212-X
※6	: 2SA1530A/QR/-X
※7	: DTC323TK-X
BW	: BUS WIRE
0	: NRSA63J-0R0X
X	: NON MOUNT (OPEN)

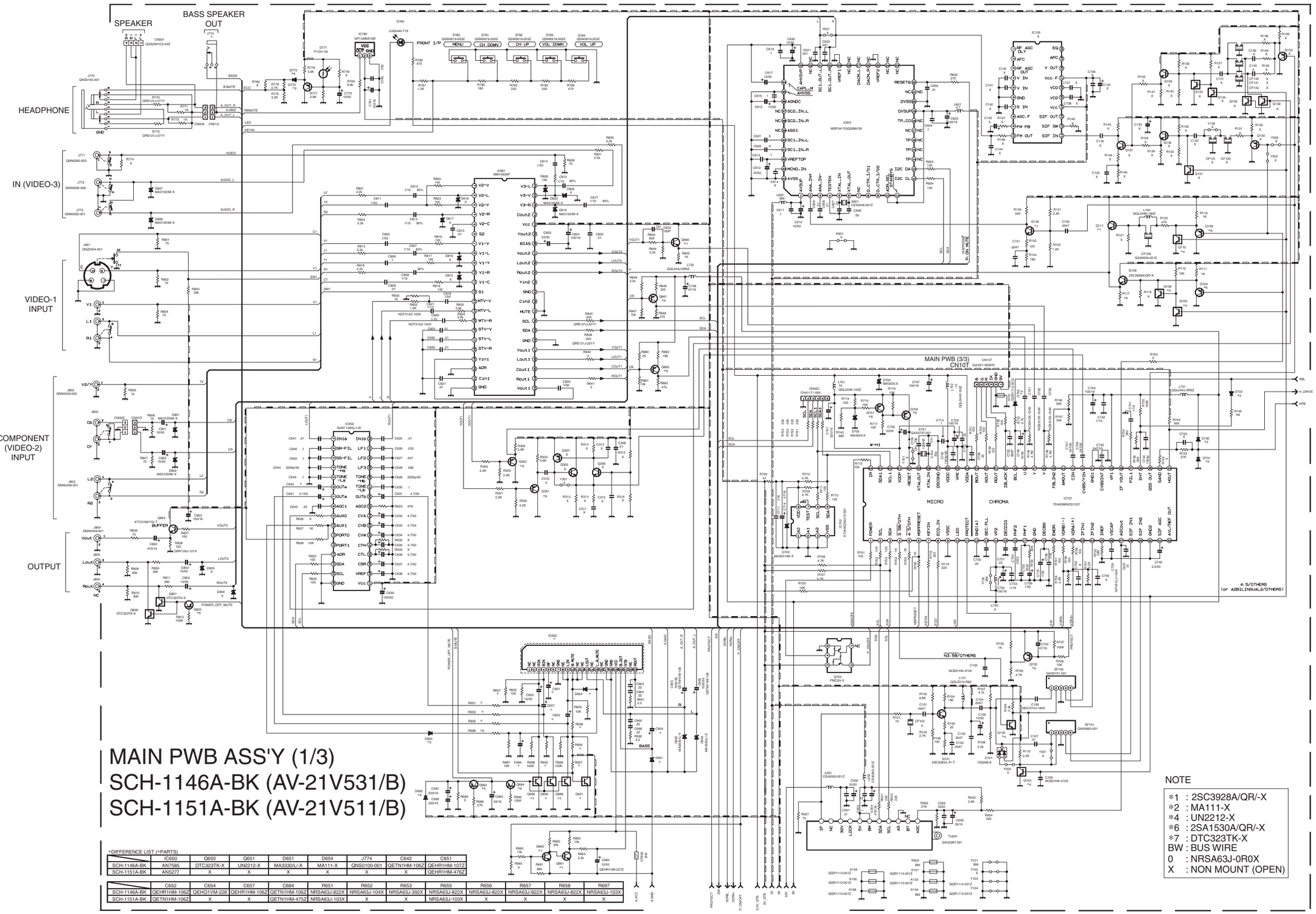
NOTES) 1. Please refer to page 2-15 for voltages of this circuit diagram.
2. Please refer to page 2-16 for waveforms of this circuit diagram.

MAIN PWB CIRCUIT DIAGRAMS (2/3, 3/3) [AV-21V311/B]



NOTES) 1. Please refer to page 2-15 for voltages of this circuit diagram.
2. Please refer to page 2-16 for waveforms of this circuit diagram.

MAIN PWB CIRCUIT DIAGRAM (1/3) [AV-21V511/B, AV-21V531/B]



MAIN PWB ASS'Y (1/3)
SCH-1146A-BK (AV-21V531/B)
SCH-1151A-BK (AV-21V511/B)

NOTE

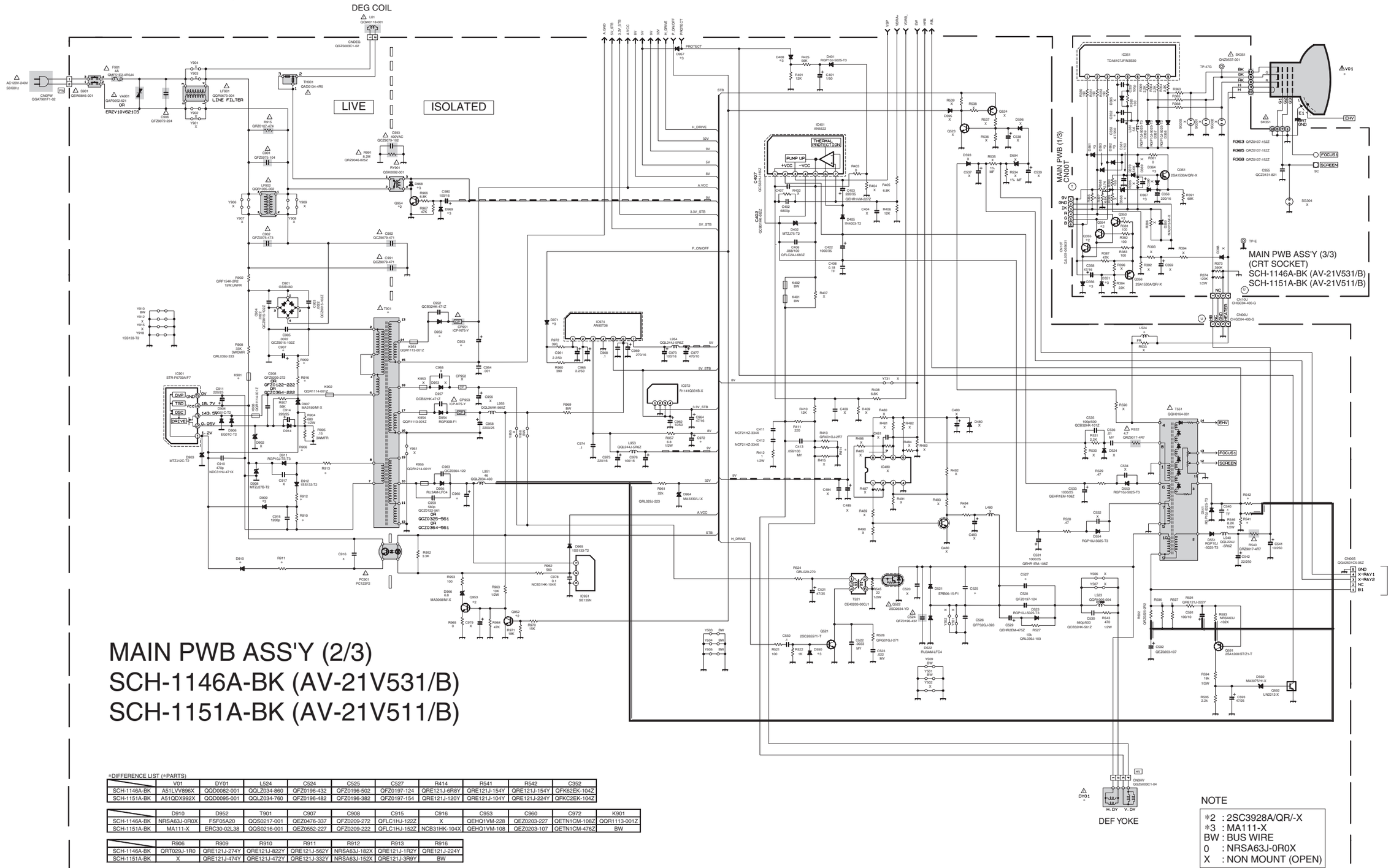
※1	: 2SC3928A/QR/-X
※2	: MA111-X
※4	: UN2212-X
※6	: 2SA1530A/QR/-X
※7	: DTC323TK-X
BW	: BUS WIRE
0	: NRSA63J-0R0X
X	: NON MOUNT (OPEN)

※DIFFERENCE LIST (※PARTS)

	IC650	Q650	Q651	Q651	D654	J774	C642	C651
SCH-1146A-BK	AN7585	DTC323TK-X	UN2212-X	MA3330/L/-X	MA111-X	QNS0100-001	QETN1HM-106Z	QEHR1HM-107Z
SCH-1151A-BK	AN5277	X	X	X	X	X	X	QEHR1HM-476Z

	C652	C654	C657	C684	R651	R652	R653	R655	R656	R657	R658	R697
SCH-1146A-BK	QEHR1HM-106Z	QEHQ1VM-228	QEHR1HM-106Z	QETN1HM-106Z	NRSA63J-822X	NRSA63J-104X	NRSA63J-392X	NRSA63J-822X	NRSA63J-822X	NRSA63J-822X	NRSA63J-822X	NRSA63J-103X
SCH-1151A-BK	QETN1HM-106Z	X	X	QETN1HM-475Z	NRSA63J-103X	X	X	NRSA63J-103X	X	X	X	X

NOTES) 1. Please refer to page 2-15 for voltages of this circuit diagram.
2. Please refer to page 2-16 for waveforms of this circuit diagram.



*DIFFERENCE LIST (*PARTS)

	V01	DY01	L524	C524	C525	C527	R414	R541	R542	C352
SCH-1146A-BK	A51LVV896X	QQD0082-001	QQLZ034-860	QFZ0196-432	QFZ0196-502	QFZ0197-124	QRE121J-6R8Y	QRE121J-154Y	QRE121J-154Y	QFK62EK-104Z
SCH-1151A-BK	A51QDX992X	QQD0095-001	QQLZ034-760	QFZ0196-482	QFZ0196-382	QFZ0197-154	QRE121J-120Y	QRE121J-104Y	QRE121J-224Y	QFKC2EK-104Z

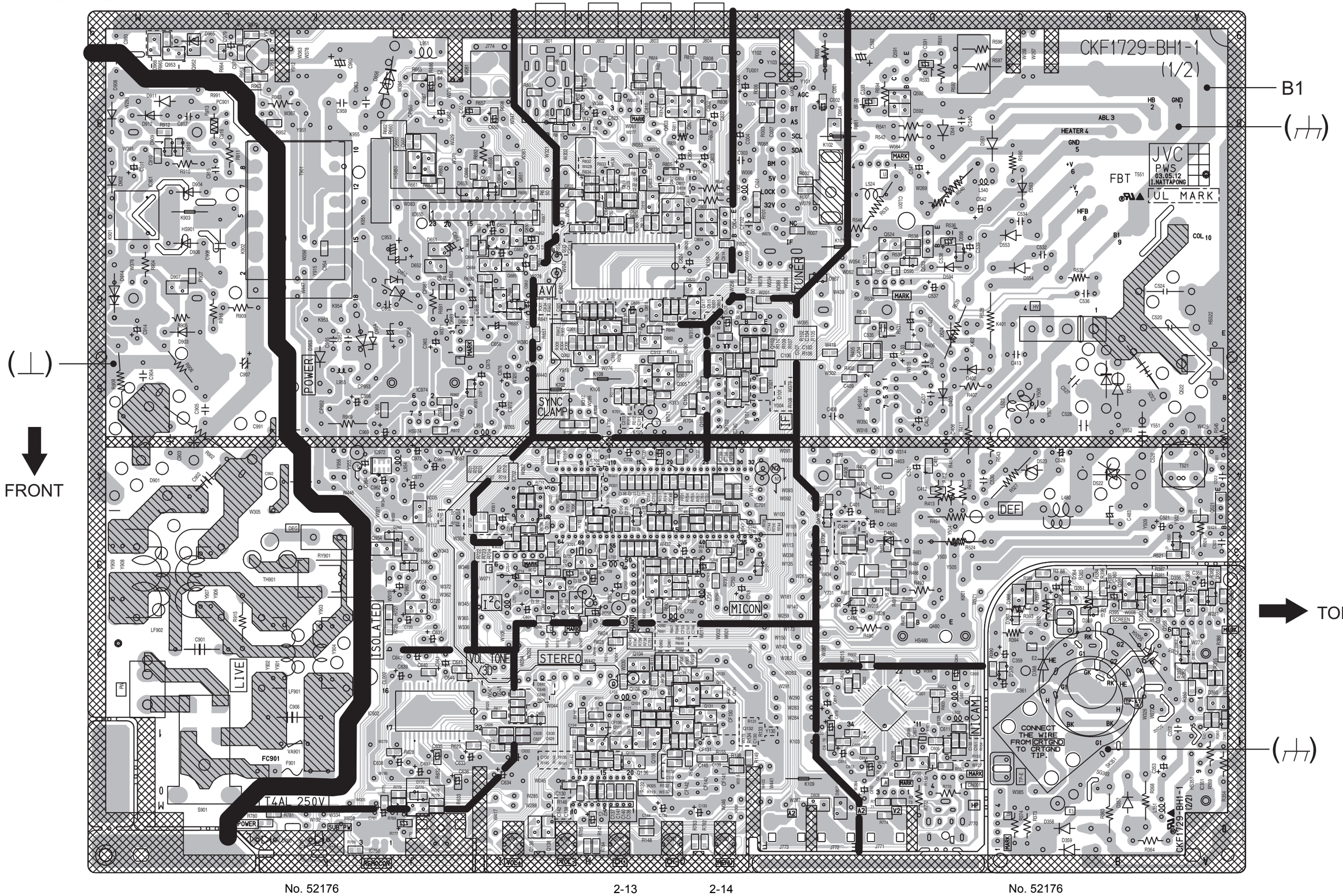
	D910	D952	T901	C907	C908	C915	C916	C953	C960	C972	K901
SCH-1146A-BK	NRSA63J-0R0X	FSF05A20	QQS0217-001	QEZ0476-337	QFZ0209-272	QFLC1HJ-122Z	X	QEHQ1VM-228	QEZ0203-227	QETN1CM-108Z	QQR1113-001Z
SCH-1151A-BK	MA111-X	ERC30-02L38	QQS0216-001	QEZ0552-227	QFZ0209-222	QFLC1HJ-152Z	NCB31HK-104X	QEHQ1VM-108	QEZ0203-107	QETN1CM-476Z	BW

	R906	R909	R910	R911	R912	R913	R916
SCH-1146A-BK	QRT029J-1R0	QRE121J-274Y	QRE121J-822Y	QRE121J-562Y	NRSA63J-182X	QRE121J-1R2Y	QRE121J-224Y
SCH-1151A-BK	X	QRE121J-474Y	QRE121J-472Y	QRE121J-332Y	NRSA63J-152X	QRE121J-3R9Y	BW

NOTES) 1. Please refer to page 2-15 for voltages of this circuit diagram.
2. Please refer to page 2-16 for waveforms of this circuit diagram.

PATTERN DIAGRAMS

MAIN PWB PATTERN



VOLTAGE CHART

<MAIN PWB>

PIN NO.	VOLTAGE(V)
IC1130	
1	0.3
2	0.4
3	0.4
4	1.5
5	1.5
6	0
7	2.4
8	4.4
9	1.9
10	2.3
11	2.2
12	0
13	2.4
14	5.0
15	4.4
16	3.6
17	5.0
18	3.7
19	3.6
20	2.4
IC1401	
1	0.5
2	14.3
3	-12.6
4	-13.8
5	0.2
6	14.6
7	0.5
IC1601	
1	5.1
2	1.5
3	1.5
4	0
5	2.5
6	2.4
7	1.1
8	0
9	0
10	5.1
11	5.1
12	3.1
13	0
14	1.4
15	0
16	1.4
17	1.4
18	1.4
19	0
20	0
21	0
22	5.0
23	0
24	0
25	0
26	0
27	0
28	0.1
29	0
30	0.1
31	3.7
32	0
33	8.2
34	7.3
35	0
36	3.7
37	0.2
38	0
39	0.1
40	3.7
41	3.7
42	2.6
43	3.7
44	0
IC1602	
1	4.6
2	4.6
3	4.6
4	4.6
5	4.6
6	4.6
7	4.6
8	1.4
9	0
10	0
11	0.7
12	0.6
13	0
14	3.1
15	3.1
16	0
17	9.2
18	4.6
19	0.5
20	3.5

PIN NO.	VOLTAGE(V)
21	4.3
22	3.0
23	3.4
24	3.4
25	0
26	4.6
27	4.6
28	4.6
29	5.4
30	5.4
31	4.6
32	4.6
IC1650	
1	0.5
2	0.3
3	0
4	0
5	23.6
6	0
7	0
8	0
9	0
10	0.6
11	0.5
12	0.5
13	11.7
14	11.7
15	0.7
16	0.7
17	0
18	0
19	24.5
20	11.6
21	15.8
22	0.8
23	11.8
IC1701	
1	3.2
2	3.0
3	3.0
4	3.3
5	3.2
6	5.1
7	3.3
8	2.8
9	0
10	0
11	0
12	0
13	2.3
14	8.3
15	5.0
16	3.0
17	3.9
18	0
19	4.0
20	0
21	0.8
22	0.8
23	1.8
24	1.8
25	3.9
26	3.8
27	2.5
28	1.9
29	1.9
30	0
31	2.3
32	0
33	1.4
34	0.4
35	2.6
36	2.1
37	2.4
38	3.1
39	8.2
40	3.4
41	0
42	3.7
43	1.5
44	3.3
45	1.9
46	2.6
47	2.7
48	2.6
49	2.9
50	5.4
51	2.5
52	2.5
53	2.7
54	3.2
55	0
56	3.3
57	0
58	1.6

PIN NO.	VOLTAGE(V)
59	1.6
60	0
61	3.3
62	4.2
63	4.4
64	4.9
IC1702	
1	0
2	0
3	0
4	0
5	4.3
6	4.3
7	0
8	4.9
IC1760	
1	5.0
2	5.0
3	0
IC1801	
1	5.0
2	4.4
3	5.0
4	4.4
5	4.9
6	0
7	5.3
8	4.4
9	4.9
10	4.4
11	4.9
12	7.3
13	5.3
14	4.4
15	4.4
16	5.0
17	4.4
18	4.4
19	5.7
20	0
21	4.9
22	0
23	5.0
24	4.3
25	3.4
26	4.3
27	4.1
28	0
29	3.1
30	3.0
31	0
32	4.9
33	0
34	5.1
35	4.2
36	4.2
37	5.1
38	4.5
39	3.5
40	9.2
41	3.5
42	4.4
43	5.0
44	4.4
IC1901	
1	2.1
2	0.7
3	304.4
4	18.9
5	0
IC1951	
1	135.1
2	9.8
3	0
IC1972	
1	3.3
2	0
3	5.0
4	5.0
IC1974	
1	4.6
2	4.6
3	9.3
4	0
5	5.1
6	11.3
7	5.1
Q1101	
E	1.6
C	9.1
B	2.3
Q1102	
E	0
C	0
B	3.1

PIN NO.	VOLTAGE(V)
Q1104	
E	3.7
C	0
B	3.1
Q1105	
E	0
C	0
B	2.8
Q1106	
E	0.
C	3.7
B	0
Q1108	
E	3.1
C	9.2
B	3.7
Q1109	
E	0
C	0
B	3.1
Q1110	
E	0
C	0
B	2.8
Q1111	
E	3.1
C	9.2
B	0
Q1130	
E	3.7
C	0
B	3.1
Q1131	
E	0
C	0
B	2.8
Q1132	
E	1.9
C	9.2
B	0
Q1133	
E	3.2
C	0
B	2.6
Q1134	
E	0
C	0
B	2.8
Q1135	
E	0
C	3.7
B	0
Q1136	
E	3.0
C	9.2
B	3.7
Q1137	
E	1.8
C	8.1
B	2.5
Q1139	
E	0
C	0.2
B	0
Q1301	
E	2.7
C	0
B	2.0
Q1302	
E	2.3
C	0
B	1.7
Q1305	
E	1.3
C	9.2
B	1.9
Q1306	
E	1.3
C	9.1
B	1.5
Q1307	
E	9.2
C	1.9
B	9.1
Q1521	
E	0
C	9.2
B	0
Q1522	
E	0
C	131.0
B	0

PIN NO.	VOLTAGE(V)
Q1591	
E	135.1
C	0
B	134.7
Q1592	
E	0
C	5.0
B	0
Q1650	
E	0
C	0
B	0.1
Q1651	
E	0
C	0
B	6.7
Q1660	
E	0
C	0
B	0.6
Q1661	
E	0
C	17.5
B	0
Q1683	
E	9.2
C	0.2
B	9.2
Q1684	
E	0.2
C	0.1
B	0
Q1685	
E	0
C	0
B	0
Q1686	
E	0
C	0
B	0
Q1701	
E	3.3
C	3.2
B	2.7
Q1702	
E	3.3
C	0
B	3.2
Q1703	
1	0
2	3.2
3	5.1
4	5.0
5	0
Q1720	
E	5.1
C	0
B	5.0
Q1770	
E	5.8
C	0
B	7.7
Q1801	
E	0
C	0
B	0
Q1802	
E	0
C	0
B	0
Q1803	
E	0.2
C	0
B	0
Q1804	
E	4.4
C	9.2
B	5.0
Q1860	
E	2.4
C	9.2
B	3.0
Q1861	
E	7.4
C	1.8
B	6.8
Q1862	
E	7.5
C	1.9
B	6.9
Q1952	
E	0
C	0
B	0.6

PIN NO.	VOLTAGE(V)
Q1953	
E	0
C	5.2
B	0
Q1954	
E	0
C	9.2
B	0
TU1001	
1(AGC)	2.7
2(BT)	0.8
3(AS)	0
4(SCL)	3.0
5(SDA)	3.1
6(BM)	5.0
7(5V)	5.1
8(LOCK)	0
9(32V)	34.0
10(NC)	0
11(IF)	0

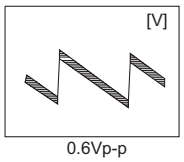
<CRT SOCKET PWB>

PIN NO.	VOLTAGE(V)
IC1351	
1	2.6
2	2.5
3	2.4
4	0
5	5.9
6	208.5
7	130.3
8	127.5
9	119.7
Q1351	
E	5.5
C	-3.2
B	5.9
Q1353	
E	0.2
C	2.5
B	0.6
Q1354	
E	0.2
C	2.5
B	0.6
Q1355	
E	0.2
C	2.6
B	0.6
Q1356	
E	0.6
C	0
B	0

WAVEFORMS

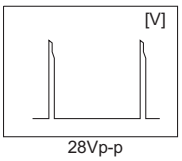
-MAIN PWB-

IC401-1



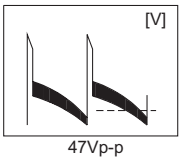
0.6Vp-p

IC401-3



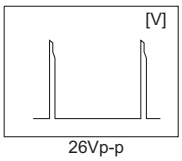
28Vp-p

IC401-5



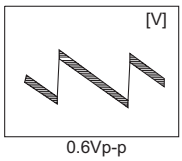
47Vp-p

IC401-6



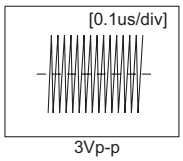
26Vp-p

IC401-7



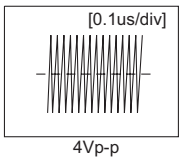
0.6Vp-p

IC601-5



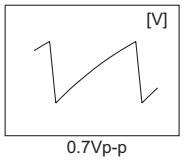
3Vp-p

IC601-6



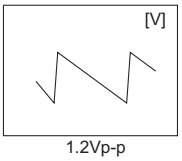
4Vp-p

IC701-21



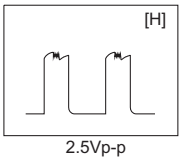
0.7Vp-p

IC701-22



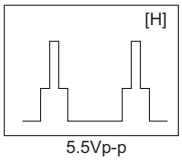
1.2Vp-p

IC701-33



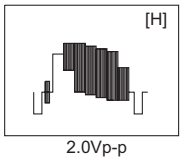
2.5Vp-p

IC701-34



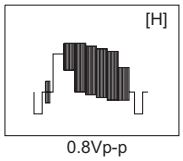
5.5Vp-p

IC701-38



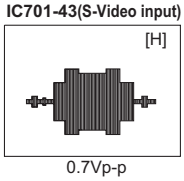
2.0Vp-p

IC701-42



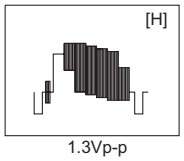
0.8Vp-p

IC701-43(S-Video input)



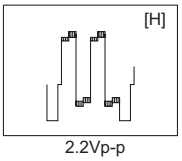
0.7Vp-p

IC701-47



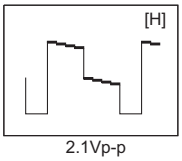
1.3Vp-p

IC701-51



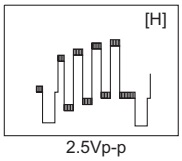
2.2Vp-p

IC701-52



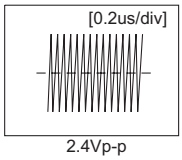
2.1Vp-p

IC701-53



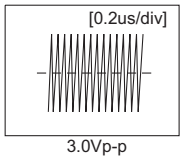
2.5Vp-p

IC701-58



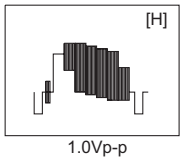
2.4Vp-p

IC701-59



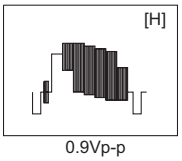
3.0Vp-p

IC801-7



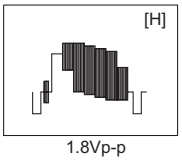
1.0Vp-p

IC801-13



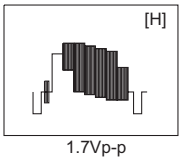
0.9Vp-p

IC801-23



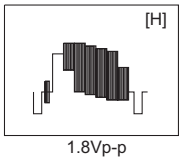
1.8Vp-p

IC801-27



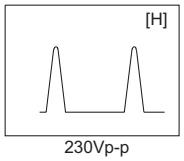
1.7Vp-p

IC801-37



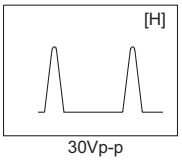
1.8Vp-p

T551-2



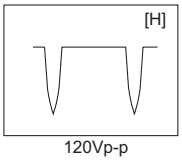
230Vp-p

T551-4



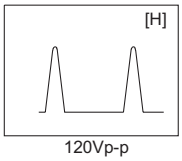
30Vp-p

T551-6



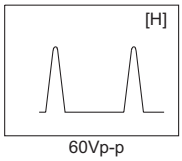
120Vp-p

T551-7



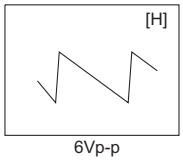
120Vp-p

T551-8



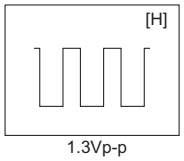
60Vp-p

T551-9



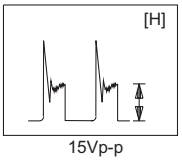
6Vp-p

Q521-B



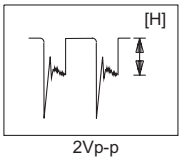
1.3Vp-p

Q521-C



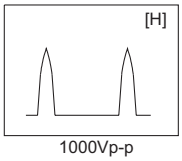
15Vp-p

Q522-B



2Vp-p

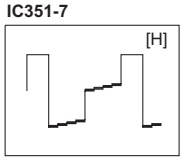
Q522-C



1000Vp-p

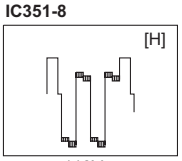
-MAIN PWB (CRT SOCKET)-

IC351-7



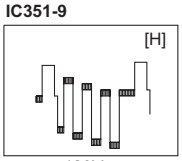
100Vp-p

IC351-8



110Vp-p

IC351-9



120Vp-p

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